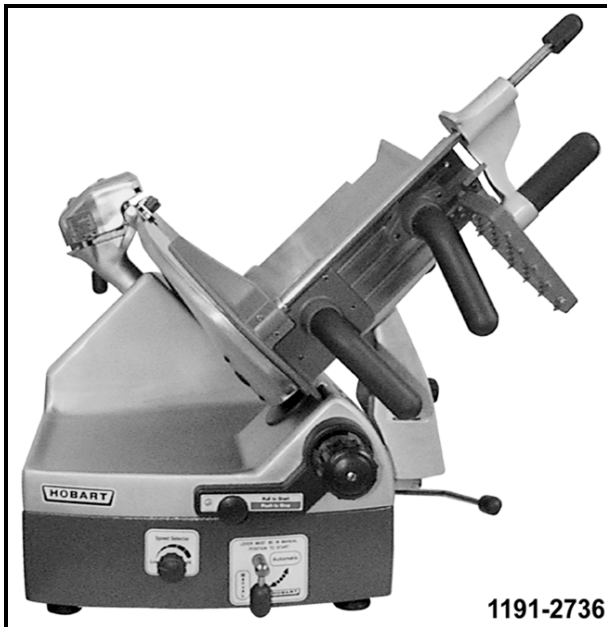




# SERVICE MANUAL



MODEL 2912 SHOWN

## SLICER

### MODELS

**2612 ML-104613 (MANUAL)**  
**2712 ML-104718 (AUTOMATIC)**  
**2812 ML-104615 (MANUAL)**  
**2912 ML-104713 (AUTOMATIC)**

#### - NOTICE -

This Manual is prepared for the use of trained Hobart Service Technicians and should not be used by those not properly qualified. If you have attended a Hobart Service School for this product, you may be qualified to perform all the procedures described in this manual.

This manual is not intended to be all encompassing. If you have not attended a Hobart Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Hobart Service Technician.

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## SLICER GENERAL

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# GENERAL

## INTRODUCTION

### Models

2812 - Manual  
 2612 - Manual  
 2912 - Automatic  
 2712 - Automatic

### Features

Listed are the finish, features and option differences between the models.

FEATURES	2612	2812	2712	2912
Interlock Switch	N	S	N	S
Carriage Tray Assembly Handle(s)	1	2	1	2
Sharpener Housing Mount Finish	BB	A	BB	A
Base Finish	BB	A	BB	A
Tray Support Assembly Finish	BB	A	BB	A
Automatic Shut-Off	N	O	N	O
Knife Home Start	N	S	N	S
Carriage Home Start	N	N	S	S
No-Voltage Release	N	S	N	S
Carriage Speeds (Automatic)	N	N	2	6
Cleaning Leg: Kickstand Lift Lever on Side	S N	S N	N S	N S

N = Not available.

S = Standard on this model.

A = Anodized finish.

BB = Polished and ball burnished finish.

O = Option (Shut off after 10 seconds).

Knife Home start - The knife motor will not start unless the carriage unit is at the indexing knob end of the slicer. (Home Position)

Carriage Home Start - The automatic drive motor will not start unless the carriage unit is at the indexing knob end of the slicer (Home Position).

Poly-V Belt driven knife.

Interlock Switch - Prevents the continuous operation of the knife motor when the index knob is below "0".

No voltage release - Requires the slicer to be manually re-started after a power interruption.

### General

Procedures apply to all models unless specified otherwise. The Model 2812 was used for photographs unless specified otherwise.

## SPECIFICATIONS

### Electrical

120/60/1

### Motors

Knife 1/2 H.P.

Carriage Drive 1/8 H.P., 90VDC, 40RPM

### Cord and Plug

A six foot flexible three wire cord and plug is standard equipment.

### Thickness

Adjustable to slice a thickness up to 1".

### Carriage Travel

12-1/2"

### Speed

Knife speed - 400 RPM

### Knife Sharpener

Top mounted removable two stone type.

### Weight

Approx. 130 lbs. (Manual Models)

Approx. 175 lbs. (Automatic Models)



## LUBRICATION

Lubricants	Where Used
Lubriplate FMO 200 AW	Carriage Transport Assembly- in wick for slide rod. (2712 and 2912) automatic carrier assembly in wick.
Lubriplate 630-AA	Index Cam - grooves. Index mechanism slide-coat slide, slide rod and anti-rotation rod. (2812 and 2912) Interlock bar and interlock bar shaft-coat.

No lubrication required: Meat grip slide rod .  
Motors.

## TOOLS

### Tools Required

Standard set of hand tools.

VOM with A/C current tester (any quality VOM with a sensitivity of at least 20,000 ohms per volt can be used).

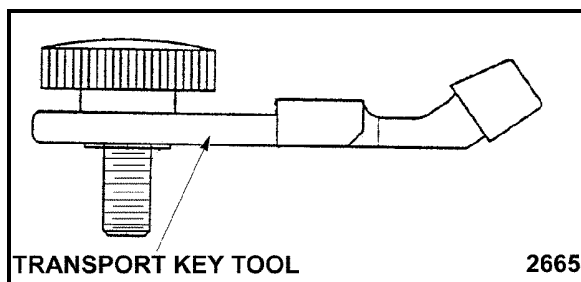
### Special

Thrust Plug Gauge, Part No. 438750. Used to set the height of the thrust plug in the knife retaining screw.

Drive belt tension gauge, Part No. 477756

2712 and 2912 Field Service Grounding Kit, TL-84919.

(2812 and 2912) Transport Key Tool, Part No. 478446. Inserted into carriage transport assembly to allow movement during times when the carriage tray unit is removed but the carriage transport assembly needs to be moved for removal or adjustment of parts.

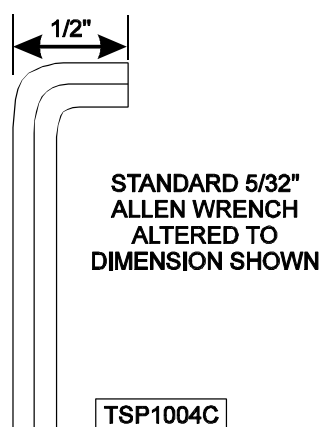


### Transport Key Tool Installation Instructions

1. Insert angled end of tool into tiltable carriage pivot (near center) and align tool with tapped hole in transport assembly.
2. Screw the tool fastener into the hole until the interlock is released.

Thin 3/4" wrench (2 required), Part No. TL-17229-1. These wrenches are required for removal/installation of nuts on the indexing cam shaft.

Special 5/32" Allen wrench. A standard Allen wrench altered to the dimension shown. Used to loosen/tighten adjusting screw/roller bearing.



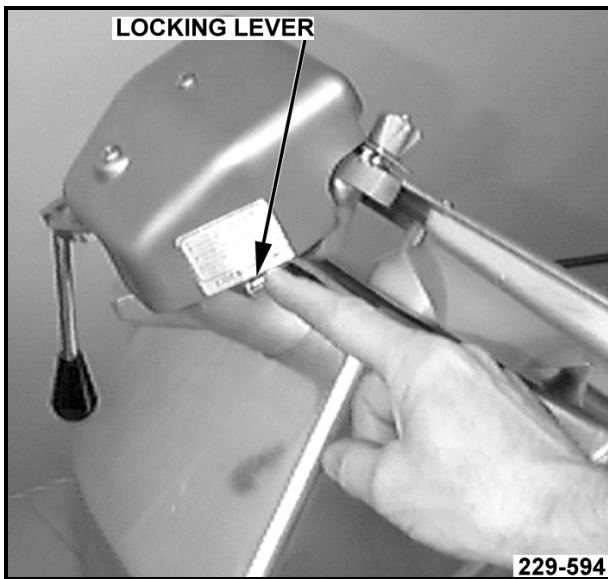
# REMOVAL AND REPLACEMENT OF PARTS

**NOTE:** Many procedures state the carriage transport assembly should be moved to home position. The carriage transport assembly is in home position when it is pulled all the way to the operator end of the slicer.

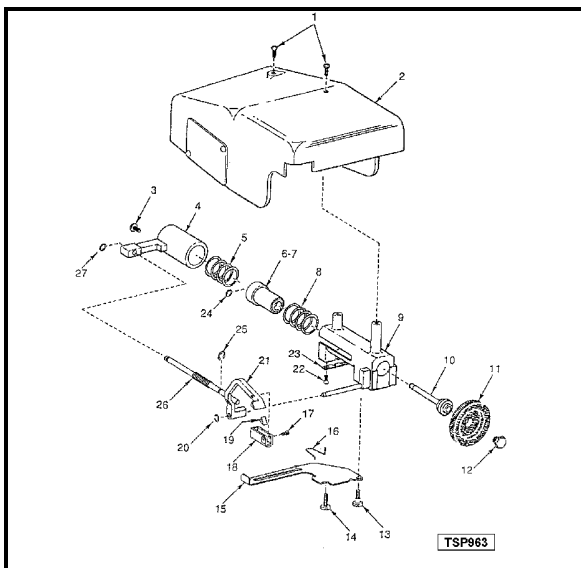
## KNIFE SHARPENER

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove the sharpener by pushing the locking lever to the left. Tilt the right side up, clearing the right guide pin, then lift the sharpener up, clearing the left guide pin.



**NOTE:** The disassembly write up will follow the illustration shown.

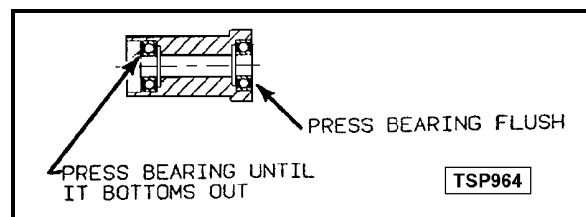


Remove only those parts required to access the part(s) being replaced.

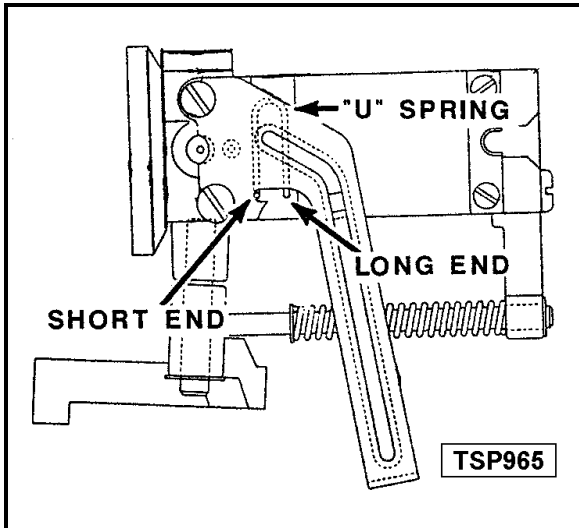
2. Remove two screws (1) to remove cover and plate assembly (2).
3. Remove retaining ring (27) to free the truing arm and pusher rod assembly (21) from the actuator (4).
  - A. The truing arm spring (26) can now be removed.
4. Remove screw (3) so actuator (4) and spring (5) can be pulled from housing and stud assembly (9).
5. If just replacing the grinding wheel (11), place a screw driver blade in the end of the grinding wheel shaft (10) and unscrew (R.H.) retaining screw (12).

**NOTE:** When reinstalling retaining screw (12) Loctite No. 222 must be used on the threads.

6. Remove retaining ring (24) and pull the grinding wheel shaft (10), grinding wheel (11) and retaining screw (12) from the plunger and ball bearing assembly (6).
  - A. Remove the grinding wheel as outlined in step 5
7. Plunger and ball bearing assembly (6) and return spring (8) can be pulled from the housing and stud assembly (9).
  - A. The ball bearings (7) can be removed from the plunger and ball bearing assembly (6). When the bearings are reinstalled they should be pressed into the plunger as shown.

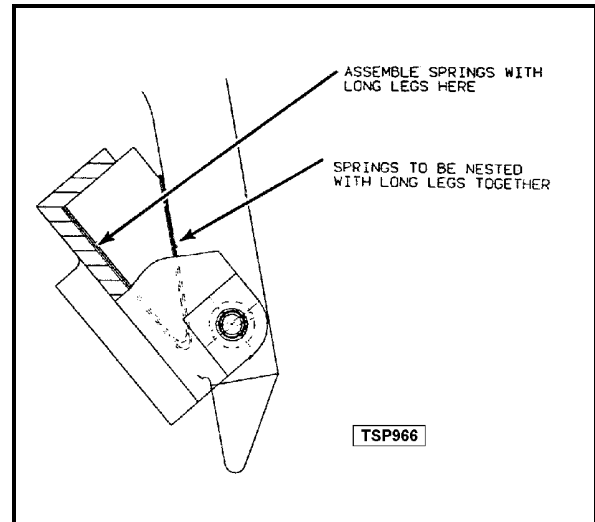


8. Remove two screws (22) to remove the rear locking plate (23) from housing and stud assembly (9).
9. Note how the long end of the "U" spring (16) is inserted into the housing and stud assembly (9). The short end is retained by a notch in the locking lever (15). Remove shoulder screw (13) to free locking lever (15) and "U" spring (16) from housing and stud assembly (9).



10. Remove retaining ring (20 ) to free truing arm and pusher rod assembly (21) from housing stud.
  - A. Remove screw (17) from truing arm to free truing stone (18) and truing stone springs (19).

**NOTE:** When installing the truing stone to the truing arm and push rod assembly, the springs must be nested together and assembled with their longest legs against the truing stone and their open end away from the screw. The screw must be installed so its head will be toward the housing after final assembly.



11. Reassemble knife sharpener assembly in reverse order.
12. Reinstall knife sharpener assembly on slicer.
13. Check for proper knife sharpener operation.

## TOP KNIFE COVER LATCH

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

### Removal

1. Remove the "TOP KNIFE COVER".
2. Remove the screw and star washer from the cover latch knob to separate it from the cover latch.

### Installation

1. Insert cover latch through the top cover with the flat spot of the latch 180 ° from the stop pin in the top cover and hold in place.
2. Place the spring over the stem of the latch with the end of the spring hooked behind the stop pin.
3. Place the knob over the spring with the end of the spring against the leading edge of the spring retaining step.
4. While preventing the latch from turning, turn the knob counterclockwise until the spring retaining step clears the stop pin and the flat spot on the latch stem aligns with the one in the knob.

**NOTE:** When turning the knob, you must negotiate the spring retaining step above the stop pin.

5. Install the Phillips head screw with the star washer under the screw head , to secure the knob and latch.

**NOTE:** Use a No. 1 Phillips driver to tighten screw.

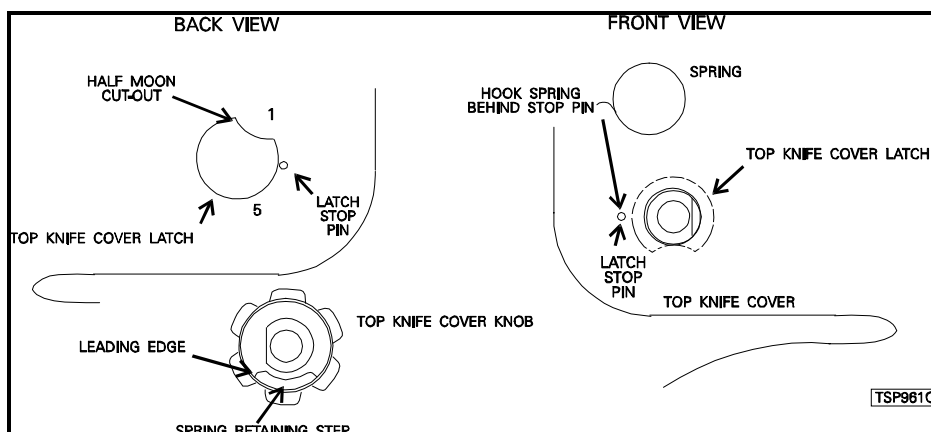
- A. Torque the screw to 10-12 in.-lbs.

6. To check:

- A. The latch should be in the latched position (the half moon cut-out at approximately 5 o'clock position, looking at the back of the top cover).
- B. Turn the knob counterclockwise until it stops and hold in position. The half moon cut-out should be at approximately 1 o'clock (looking at the back of the top cover).
- C. Release the knob and the half moon cut-out should return to approximately 5 o'clock (looking at the back of the top cover).

7. Reinstall the top knife cover.

8. Check for proper operation of the top knife cover latch.

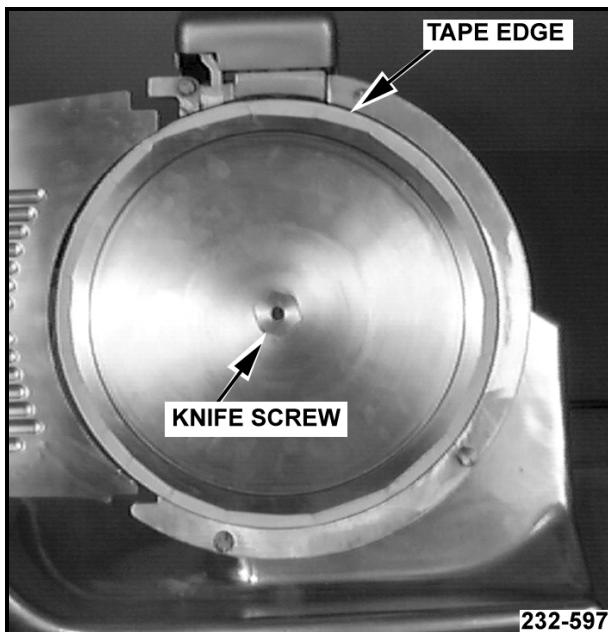


## KNIFE

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**WARNING:** THE SLICER KNIFE IS VERY SHARP. EXERCISE EXTREME CAUTION WHEN WORKING NEAR THE KNIFE.

1. Remove "CARRIAGE TRAY ASSEMBLY"
2. Remove the "TOP KNIFE COVER".
3. Remove "DEFLECTOR".
4. (2812 and 2912) Install the transport key tool and release the gauge plate interlock.
5. Turn the indexing knob fully counterclockwise.
6. Tape the exposed knife edge as shown.
7. Using a 1-1/8 " wrench, remove the knife screw by turning it counterclockwise.



**NOTE:** If necessary, give the wrench handle a sharp blow with a hammer to loosen it. DO NOT TRY TO HOLD THE BLADE BY HAND.

8. Carefully grasp the edges of the knife with both hands and with a slight rocking motion, loosen the knife and remove from the machine.

9. Reassemble in reverse order.

**NOTE:** When the knife is replaced:

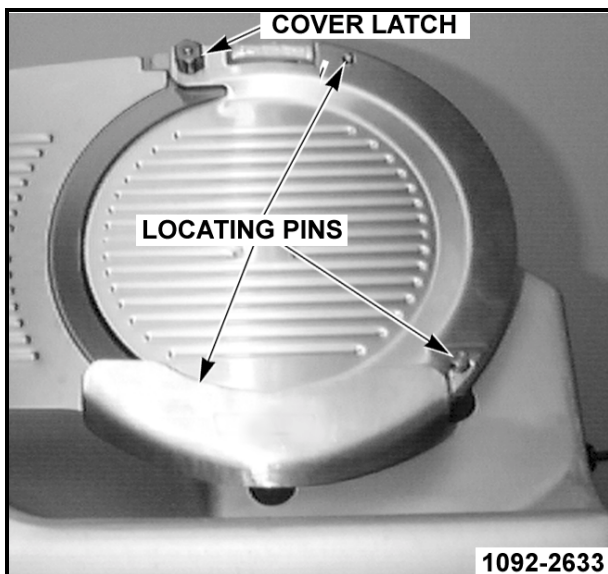
- A. Check clearance between knife and gauge plate.
  - B. Fit of top knife cover.
  - C. Height of knife ring guard to knife face.
  - D. Check that the outside diameter does not rub the inside diameter of the ring guard. (Refer to "GAUGE PLATE AND INDEXING KNOB", "TOP KNIFE COVER FIT" and "HEIGHT OF KNIFE RING GUARD TO KNIFE FACE" in SERVICE PROCEDURES AND ADJUSTMENTS).
10. Check unit for proper operation.

## TOP KNIFE COVER

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**WARNING:** THE SLICER KNIFE IS VERY SHARP. EXERCISE EXTREME CAUTION WHEN WORKING NEAR THE KNIFE.

1. Turn index knob to below 0 position.
2. Turn the top knife cover latch by rotating counterclockwise and holding.
3. Holding the latch in the rotated position, lift cover out and up to remove from machine.
4. To install:
  - A. Place the cover on the locating pins.
  - B. Rotate the top knife cover latch counterclockwise until the cam area drops over the cover locking pin.
  - C. Release the latch and the spring will position the cam area under the cover locking pin.



**NOTE:** If the top knife cover is being replaced, perform the "TOP KNIFE COVER FIT".

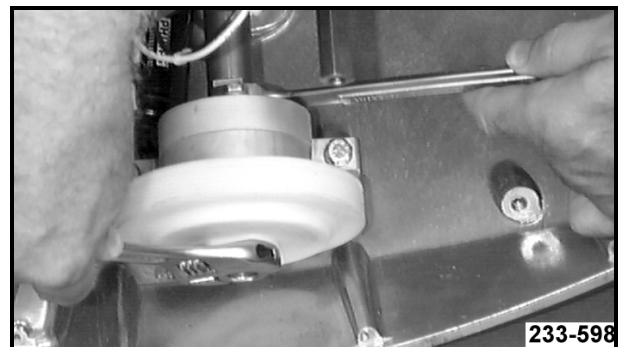
5. Check unit for proper operation.

## KNIFE SHAFT ASSEMBLY/LOWER HUB AND BEARING RETAINER

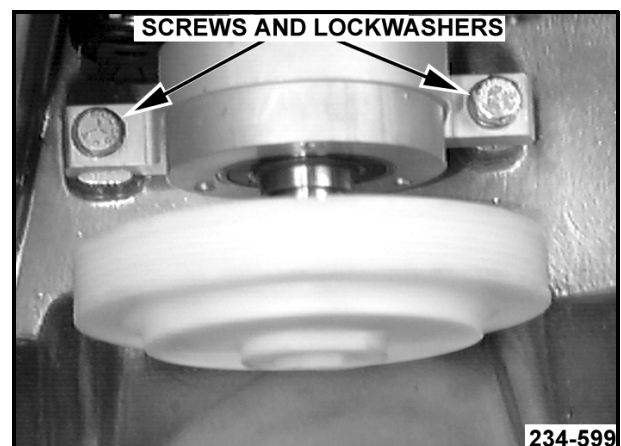
**WARNING:** UNPLUG UNIT BEFORE SERVICING.

### Removal

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Remove "KNIFE".
3. Remove knife shaft ring.
4. Remove "KNIFE DRIVE MOTOR".
5. Remove nut and washer from knife shaft.



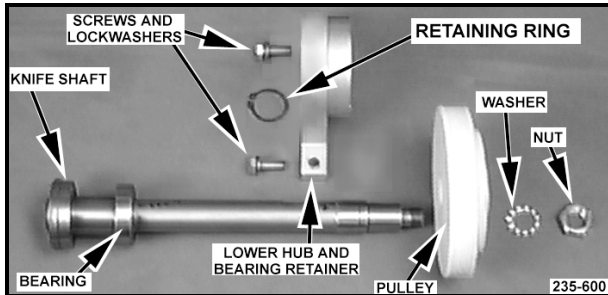
- A. Remove two screws and lockwashers holding lower hub and bearing retainer to base.



**NOTE:** Care must be taken not to damage the outside diameter of the pulley.

## SLICER REMOVAL AND REPLACEMENT OF PARTS

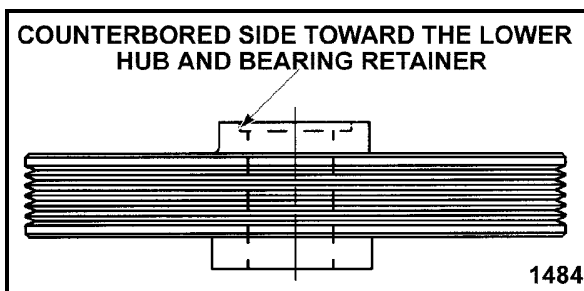
- B. Lightly tap shaft upward to allow room for removal of the pulley.
  - C. Lightly tap the pulley from the shaft. If the pulley cannot be removed by lightly tapping use a puller to pull pulley from shaft.
6. Pull lower hub and bearing retainer from shaft and remove retaining ring.



- A. Press bearing from lower hub and bearing retainer.
7. Lightly tap shaft upward and pull shaft assembly and bearing from base and deflector mount.
- A. Remove bearing from shaft.

### Installation

1. Press top bearing on shaft and install the retaining ring.
2. Reinstall the shaft through the deflector mount and the base.
3. Install the lower hub and bearing retainer on shaft and slide it against the retaining ring.
  - A. Apply Loctite primer, part no. 544434-2 and Loctite #638, part no. 547280 between the shaft and the bearing so they rotate as a unit after assembly.
4. Start the pulley onto the shaft with the counterbored hub toward the lower hub and bearing retainer, by lightly tapping pulley.



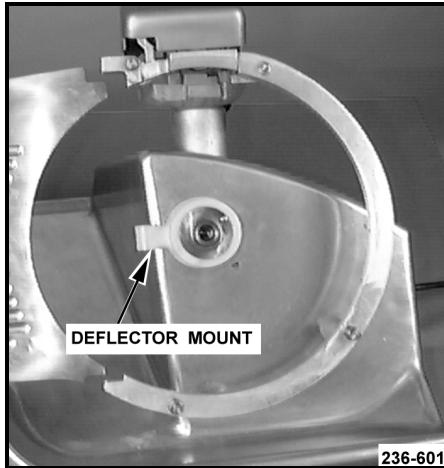
- A. Start pulley washer and nut.
  - B. Install assembly to base key.
  - C. Start two screws and lockwashers through the lower hub and bearing retainer, but do not tighten.
  - D. Complete installation of pulley by tightening the washer and nut.
5. Pull the lower hub and bearing retainer and make sure the top bearing is completely seated in its housing.
- A. Tighten the two mounting screws while holding the lower hub and bearing retainer in position.
6. Reinstall the knife shaft ring and knife leaving the top knife cover off.
7. Verify there is **no end play in knife shaft** by pulling upwards from back side of knife and then pushing downward on face of knife. If end play is present steps 5-5A and 7 must be repeated.
8. Check "HEIGHT OF KNIFE RING GUARD TO KNIFE FACE".
9. Install knife drive motor, adjusting "POLY-V BELT TENSION" and check "PULLEY ALIGNMENT".
10. Reinstall top knife cover.
11. Check unit for proper operation.



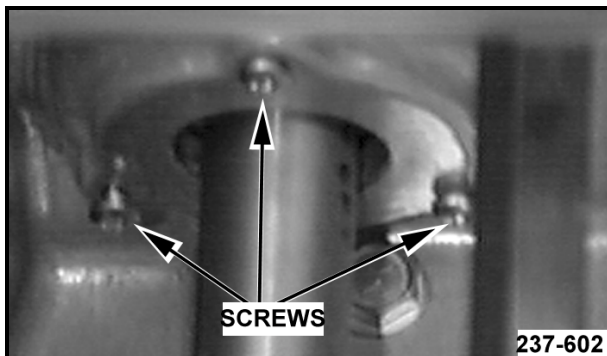
## DEFLECTOR MOUNT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove the "KNIFE".



2. Remove the "KNIFE DRIVE MOTOR".
3. Remove two screws holding the motor start switch bracket to the base and move the bracket assembly to the side.  
**NOTE:** When the deflector mount is installed RTV 732 should be on the bottom where it meets the base.
4. Remove the three screws holding the deflector mount to the base.

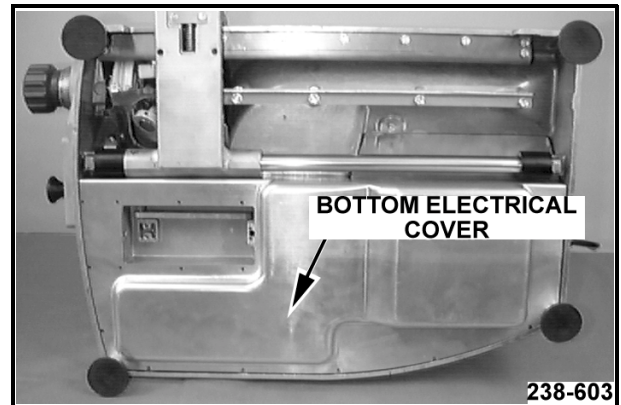


5. Reassemble in reverse order, adjusting the "POLY-V BELT TENSION" and check "PULLEY ALIGNMENT".
6. Check unit for proper operation.

## 2612 AND 2812 BASE COMPONENT ACCESS

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Turn index knob to below 0 position.
2. Move carriage transport assembly to home position.
3. Remove "CARRIAGE TRAY ASSEMBLY".
4. Remove "KNIFE SHARPENER".
5. Place slicer on its side (resting on sharpener support assembly).
6. If accessing a component under bottom cover, remove the two feet over the bottom cover and remove the screws retaining the bottom cover.



7. Reassemble in reverse order.
8. Check unit for proper operation.

## 2712 AND 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS

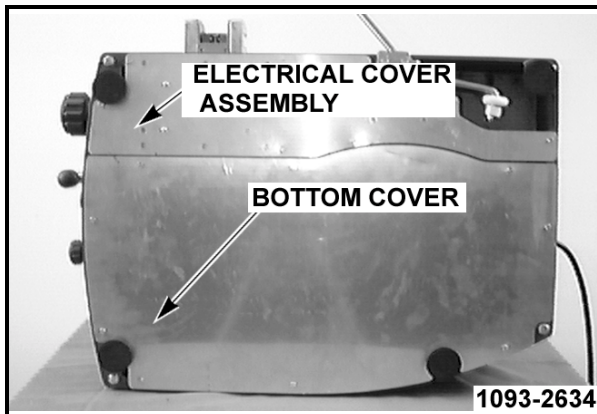
**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Turn index knob to below 0 position.
2. Move carriage transport assembly to home position.
3. Remove "CARRIAGE TRAY ASSEMBLY".
4. Remove "KNIFE SHARPENER".

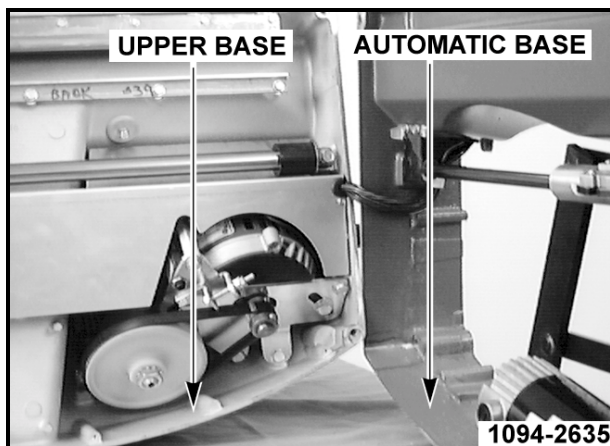


## SLICER REMOVAL AND REPLACEMENT OF PARTS

5. Turn the slicer up and resting on the sharpener side of the automatic base.

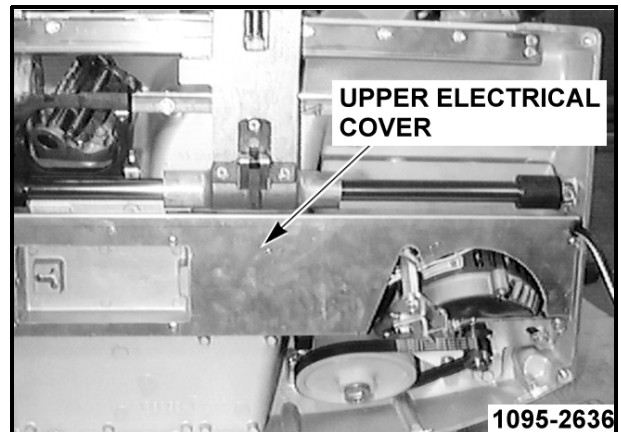


6. For components in the automatic base, under the bottom cover, remove nine screws and pull cover upward from behind feet.
7. For components in the automatic base, on the electrical cover assembly, remove eight screws and carefully pull assembly outward to access wiring connections.
8. For components in the upper base, unscrew the upper right hand foot.
  - A. Remove four screws to free automatic base from upper base and position automatic base as shown.



- B. For components behind the upper electrical cover, remove five screws.

- 1) Pull cover on an angle away from the on/off switch outward and upward for removal.

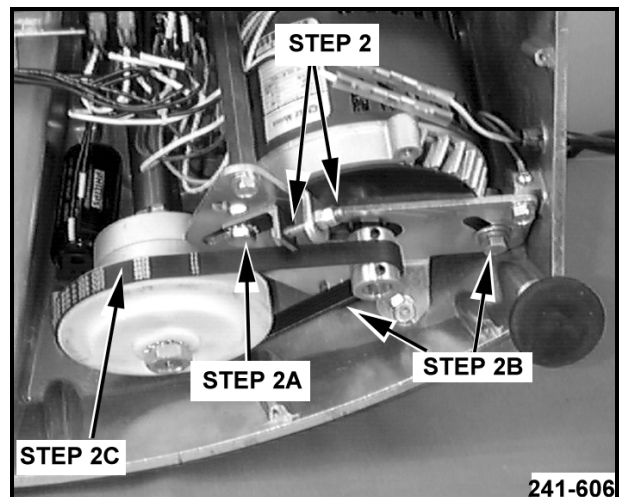


9. Reassemble in reverse order.
10. Check unit for proper operation.

## POLY-V BELT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Loosen belt tensioning adjustment screw nuts.
  - A. Loosen screw holding tensioner bracket to motor plate.
  - B. Loosen two screws holding motor plate to motor.

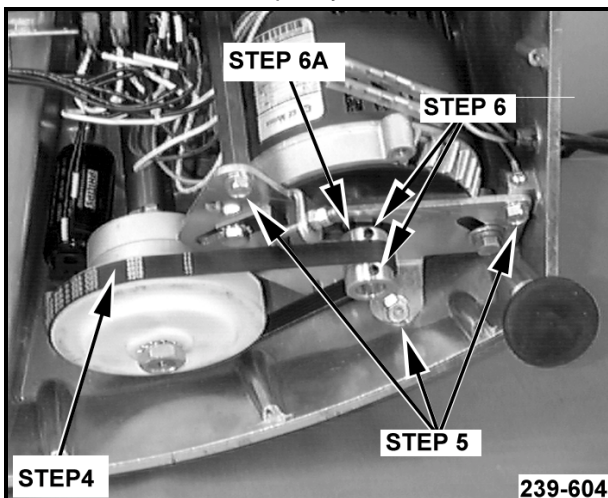


- C. Pivot motor to allow slack in poly-V belt and remove from pulleys.
3. Install poly-V belt, adjust "POLY-V BELT TENSION" and check "PULLEY ALIGNMENT".
  4. Reassemble in reverse order step 1.

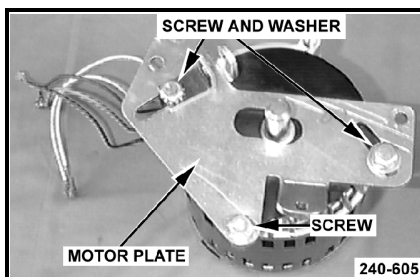
## KNIFE DRIVE MOTOR

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 AND 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Note the color and location of motor wires and disconnect them.
  - A. Remove and save the piggyback terminals.
3. Disconnect wires from power cord.
4. Remove "POLY-V BELT", steps 2-2C.
5. Remove three screws holding motor plate/motor and gasket assembly to base.
  - A. Tilt assembly and remove it from base.
6. Note location of pulley on motor shaft and loosen two set screws.
  - A. Remove belt pulley from shaft.



7. Note location and type of washers with screws, relationship of motor plate to motor leads and remove three screws to free motor plate from motor.



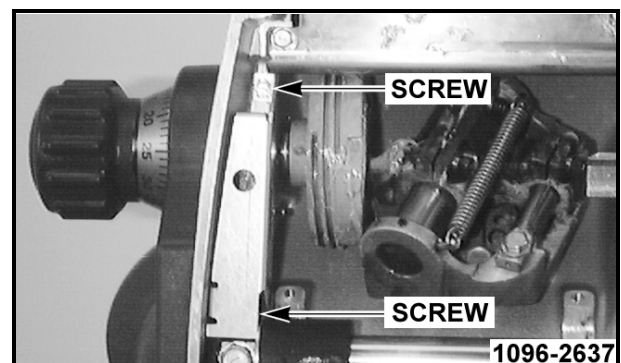
**NOTE:** It is recommended that the motor gasket be replaced anytime the motor is replaced. When installing a new motor gasket, peel the backing off before installation.

8. Reassemble in reverse order steps 7-5.
9. Reinstall poly-V belt.
10. Adjust "POLY-V BELT TENSION" and check "PULLEY ALIGNMENT".
11. Continue reassembly in reverse order steps 3-1.

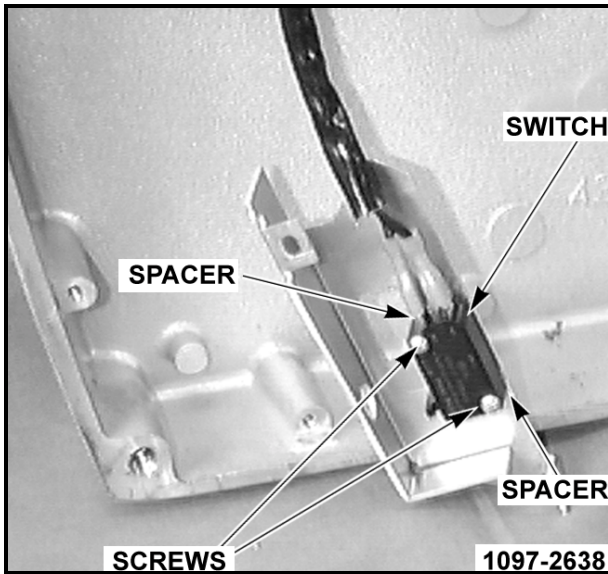
## 2812 and 2912 INTERLOCK SWITCH (1LS)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Remove "PIVOTING INTERLOCK PLATE ASSEMBLY".
3. Note the routing of the switch wires to the switch bracket and remove two screws to free interlock switch/switch bracket assembly from base.



4. Remove two screws, switch and two spacers from switch bracket.

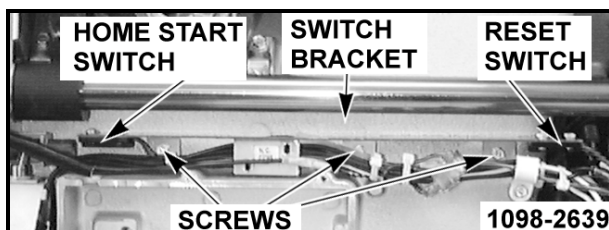


5. Reassemble in reverse order steps 4-2.
6. Check "2812 and 2912 INTERLOCK SWITCH ADJUSTMENT".
7. Reassemble in reverse order step 1.
8. Check unit for proper operation.

### 2712 HOME SWITCH (1LS) 2812 AND 2912 HOME START SWITCH (2LS) AND RESET SWITCH (3LS) (AUTO SHUTOFF OPTION)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 AND 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Remove three screws to free switch bracket from base.
3. Remove two screws, nuts and lockwashers to free switch from switch bracket.



4. Note location of switch wires, cut wire tie(s) and disconnect wires.
5. Reassemble in reverse order.
6. Check unit for proper operation.

### 2812 AND 2912 TIME DELAY RELAY (1TDR) (AUTO SHUTOFF OPTION)

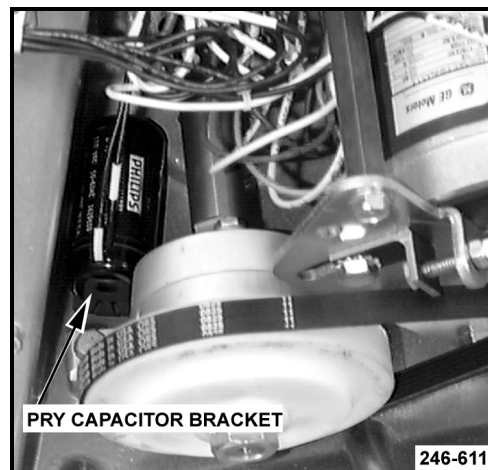
**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 7.
2. Note location of relay wires and disconnect them.
3. Remove screw(s) and lockwasher(s) to free relay.
4. Reassemble in reverse order.
5. Check unit for proper operation.

### CAPACITOR

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. With a bladed screw driver pry the end of the capacitor bracket to free the capacitor.



- A. Lift the capacitor and end cap from bracket.
- B. Remove end cap and disconnect wires.
3. Reassemble in reverse order.
4. Check unit for proper operation.



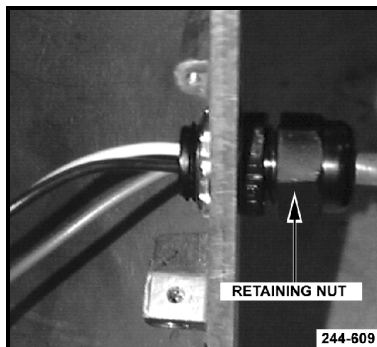
## CORD AND PLUG ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Note location of cord and plug assembly wires and disconnect them.

**NOTE:** When tightening retaining nut, hand tighten only to a tightness that doesn't allow the cord to move in the strain relief when pulled on.

3. Loosen outside retaining nut of strain relief.



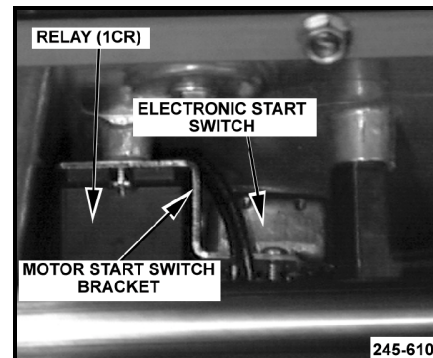
4. Pull cord and plug and strain relief from base.
5. Reassemble in reverse order.
6. Check unit for proper operation.

## RELAY (1CR)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", STEPS 1-5 AND 8-8B 1).
2. Remove screw to free wire clamp from motor start switch bracket.
3. Loosen bottom screw in motor start switch bracket.

- A. Remove top screw in switch bracket.

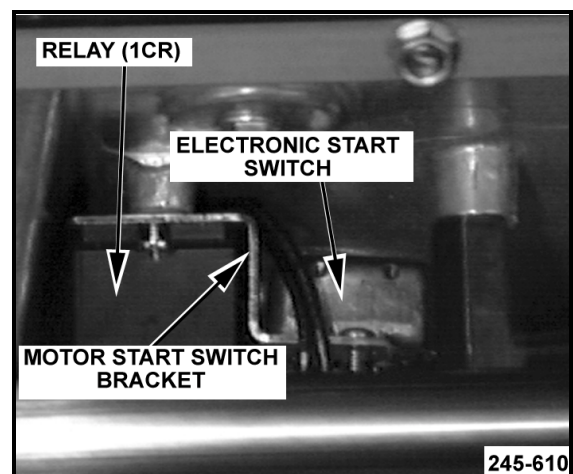


- B. Lift relay upward to free relay from switch bracket.
4. Note location of relay wires and disconnect them.
  5. Reassemble in reverse order.
  6. Check unit for proper operation.

## ELECTRONIC START SWITCH

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 AND 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Remove two screws holding motor start switch bracket to base.

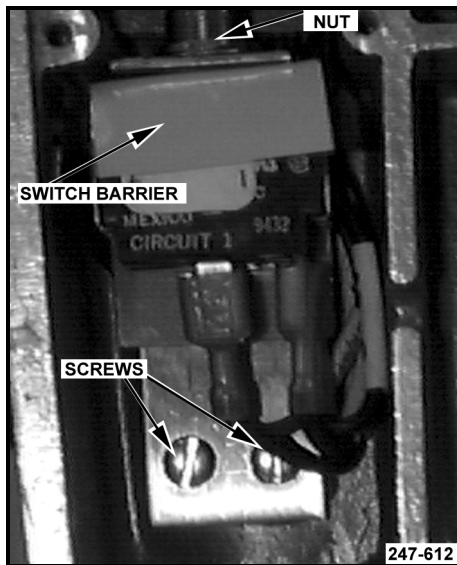


3. Note location of start switch wires and disconnect them.
4. Remove two screws from start switch bracket to free start switch.
5. Reassemble in reverse order.
6. Check unit for proper operation.

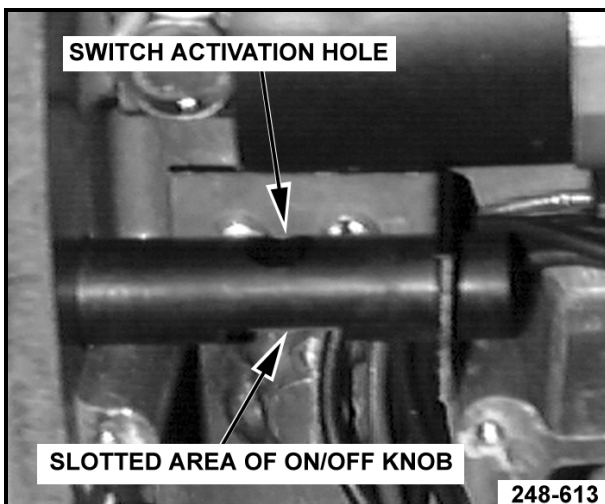
## ON/OFF SWITCH (1S)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. Remove two screws holding on/off switch bracket to base.



**NOTE:** Take note of orientation of switch activation hole in on/off knob and routing of wires before removing switch .



3. Pull on/off switch and bracket assembly from on/off knob.

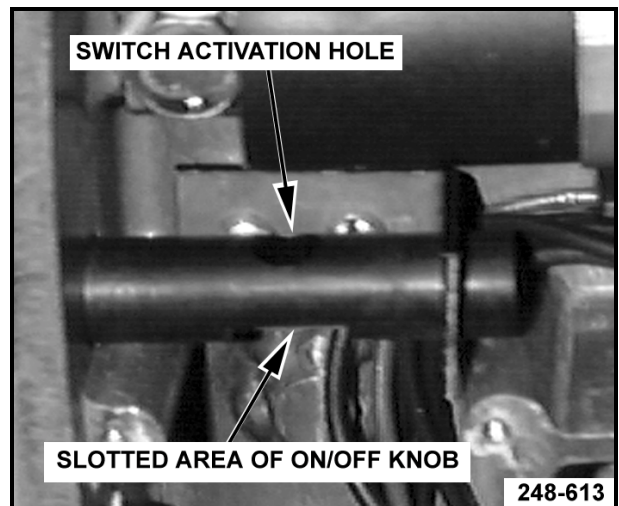
4. Note location of switch wires and disconnect them.
5. Unscrew switch nut to free switch and switch barrier from switch bracket.
6. Reassemble in reverse order.
7. Check unit for proper operation.

## ON/OFF KNOB

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.

**NOTE:** Take note of orientation of switch activation hole in on/off knob and routing of wires before removing switch.



3. Pull on/off switch and bracket assembly from on/off knob.
4. Pull on/off knob from switch rod bracket and hole in base.
5. Reassemble in reverse order.
6. Check unit for proper operation.

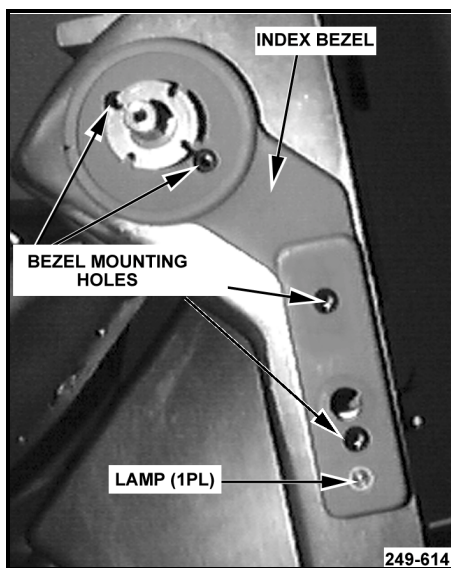
## LAMP (1PL)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "ON/OFF Knob".

**NOTE:** A new label "pull to start/push to stop" must be installed when the lamp is replaced.

2. Remove pull to start/push to stop label from index bezel to expose two of the bezel mounting screws.
3. Remove "INDEX KNOB AND DIAL", to expose the other two index bezel mounting screws.



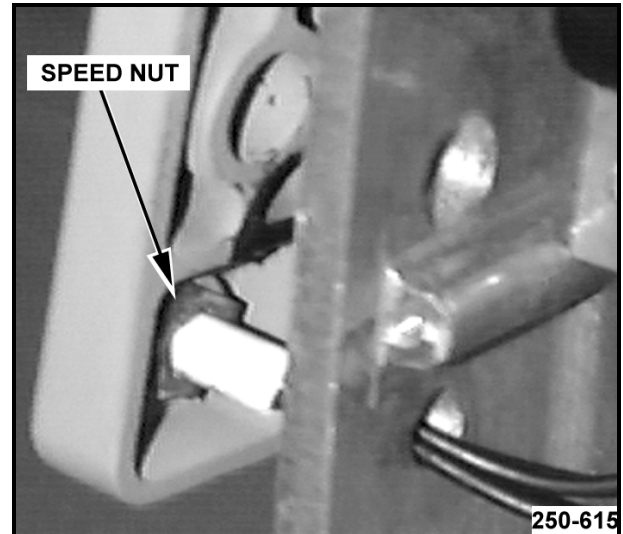
- A. Remove the screws.

4. Disconnect the lamp wires.

**NOTE:** When the index bezel is installed RTV 732 should be on the inside groove outline, where it meets the base.

5. Pull the index bezel away from the base, to access the speed nut holding the lamp to the bezel.

- A. Pull the speed nut from the bezel, to free the lamp.



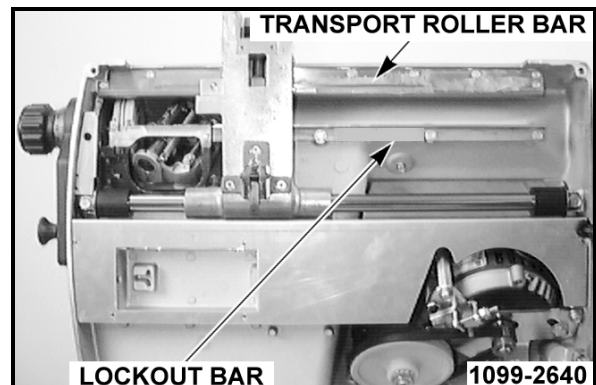
- B. Pull the lamp from the bezel.

6. Reassemble in reverse order.
7. Check unit for proper operation.

## SLIDE ROD

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. (2812 and 2912) using the transport key tool move carriage transport assembly to middle of slide rod (away from interlock switch).
3. Remove nine screws holding transport roller bar to base and pull roller bar sideways to remove.



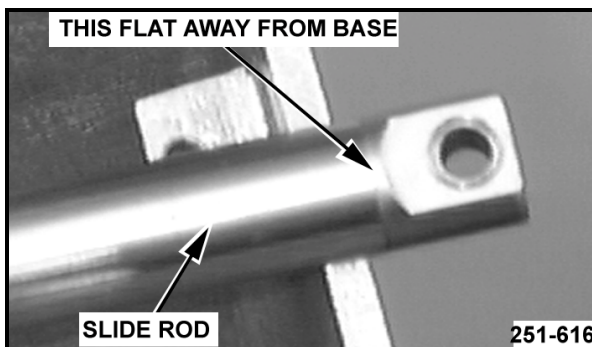
4. Remove two screws to free slide rod from base.

5. Lift slide rod and carriage transport assembly from base.

- A. Remove washers and bumpers from the slide rod.
- B. Pull slide rod from carriage transport assembly.

**NOTE:** The slide rod, transport roller bar and carriage transport assembly must be reinstalled simultaneously.

6. Install slide rod in transport assembly.
  - A. Install bumpers and washers on rod.
  - B. (2812 and 2912) Using the transport key tool move carriage pivot so that interlock bar on carriage transport assembly is on top of lockout bar during installation of carriage transport assembly as shown in photo (step 3).
  - C. Reinstall carriage transport assembly/slide rod to the base with square flats on slide rod toward base, starting the two mounting screws, leaving them loose.

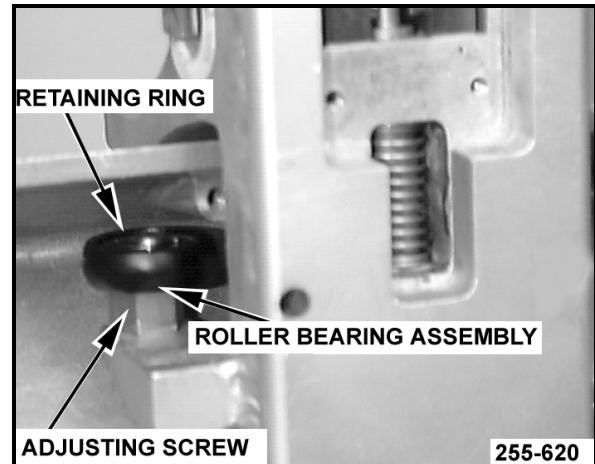


- D. Reinstall the transport roller bar using nine screws.
  - E. Tighten the slide rod mounting screws.
7. Check "CARRIAGE TRANSPORT ASSEMBLY" adjustments.
  8. Remove transport key tool.
  9. Reassemble in reverse order, step 1.
  10. Check unit for proper operation.

## ROLLER BEARING ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "SLIDE ROD".
2. Remove retaining ring and pull roller bearing assembly from adjusting screw.



3. Reassemble in reverse order.
4. Check "CARRIAGE TRANSPORT ASSEMBLY" adjustment.
5. Check unit for proper operation.

## TRAY SUPPORT ASSEMBLY KNOB

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

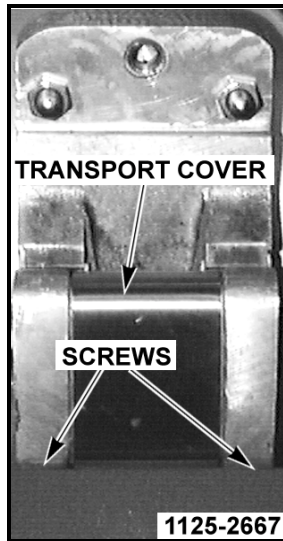
1. Perform "CARRIAGE TRAY ASSEMBLY" removal steps 1-3A.
2. Remove knob assembly by removing retaining ring and pulling from support arm.
3. Reassemble in reverse order.
4. Check unit for proper operation.



## CARRIAGE TRANSPORT ASSEMBLY

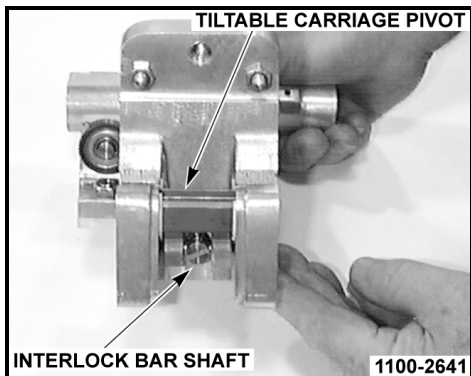
**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "SLIDE ROD".
2. Remove transport key tool.
3. Lift transport assembly from base.
4. 2712 and 2912 remove "AUTOMATIC ENGAGE PAWL ASSEMBLY".
5. Remove two screws holding transport cover to transport.



6. Press on the end of interlock bar until the tiltable carriage pivot can be rotated to be disengaged from the bar shaft.

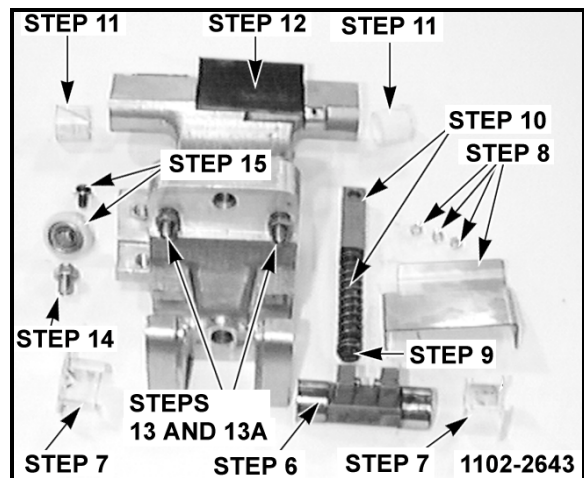
A. Disengage carriage pivot.



- B. Rotate legs to vertical position and slide tiltable carriage pivot sideways from transport.

**NOTE:** When reinstalled the flat side of the legs must end up against the machined surface of the transport.

7. Pull the pivot bearings from the transport. Note the bearing locating grooves in the transport and the locating stud on the bearings.
8. Remove the interlock cover by removing three screws.
9. Unscrew the interlock bar shaft from the interlock bar and pull it out of the transport. When installing the bar shaft lightly coat it with Lubriplate 630-AA.
10. Pull the interlock bar and interlock bar spring from the transport. When installing the bar lightly coat it with Lubriplate 630-AA.
11. Pull the transport bearings from the transport.
12. Pull slide rod wick from transport. When installing wick lubricate with Lubriplate FMO 200 AW.
13. Remove the locknuts from adjusting screws.
  - A. Unscrew two adjusting screws from transport.
14. Remove locking nut and overturn set screw.



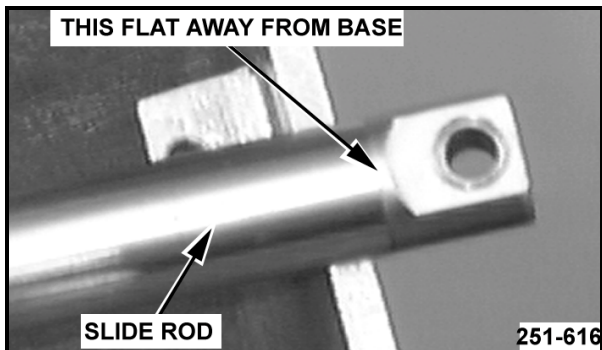
15. Remove adjusting screw/roller bearing assembly by removing screw and washer.
16. Reassemble in reverse order, steps 15-3.

**NOTE:** The slide rod, transport roller bar and carriage transport assembly must be reinstalled simultaneously.



17. Install slide rod in transport assembly.

- A. Install washers and bumpers on rod.
- B. (2812 and 2912) Install transport key tool and move carriage pivot so that interlock bar on carriage transport assembly is on top of lockout bar during installation of carriage transport assembly.
- C. Reinstall carriage transport assembly/slide rod to the base with square flats on slide rod toward base, starting the two mounting screws, leaving them loose.



- D. Reinstall the transport roller bar using nine screws.
- E. Tighten the slide rod mounting screws.

18. Adjust "CARRIAGE TRANSPORT ASSEMBLY".

19. Place unit upright.

20. Reinstall "KNIFE SHARPENER".

21. Remove transport key tool.

22. Reinstall "CARRIAGE TRAY ASSEMBLY".

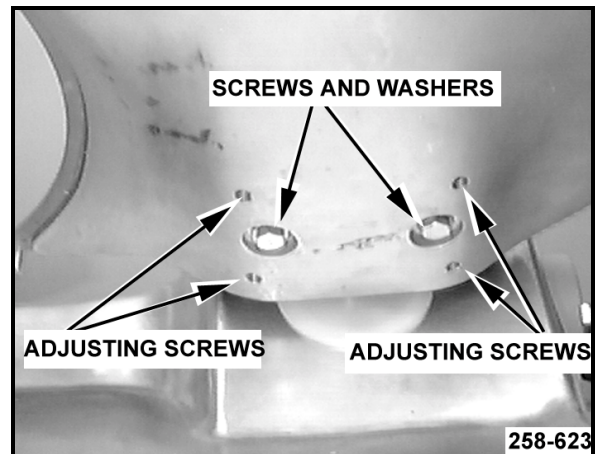
23. Adjust "CARRIAGE TRAY ASSEMBLY".

24. Check unit for proper operation.

## GAUGE PLATE ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "KNIFE".
2. Remove hole plugs in gauge plate assembly.
3. Remove two screws and washers to free gauge plate from special mount.



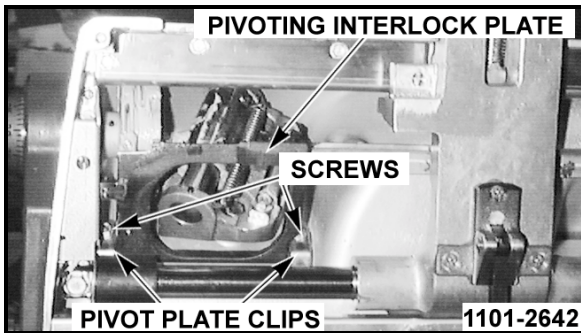
- A. Pull gauge plate upward from special mount.

4. Reassemble in reverse order.
5. Adjust "GAUGE PLATE AND INDEX KNOB".
6. Check unit for proper operation.

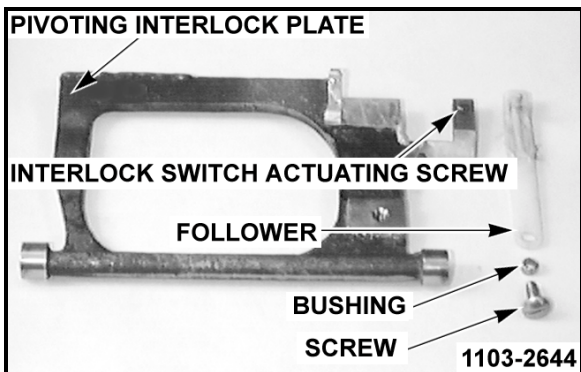
## PIVOTING INTERLOCK PLATE ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. (2812 and 2912) Using the transport key tool release the carriage transport assembly and move to the side.
3. Disconnect the pivot plate spring from the plate assembly.
4. Remove pivot plate clips by removing two screws.
  - A. Pull pivot plate from switch bracket and base.



5. Remove screw to free bushing and interlock plate follower from plate.
  - A. Pull follower bushing from follower.



**NOTE:** When installing follower to plate torque screw to 25-30 in. lbs.

**NOTE:** When installing the interlock switch actuating screw turn it until only a couple threads show through.

6. Unscrew interlock switch actuating screw from plate.
7. Reassemble in reverse order, making sure the gauge plate is in the below O position and the follower is inserted at the end of the cam spiral.
8. Adjust "Interlock Switch" (2812 and 2912).
9. Check unit for proper operation

## INDEX MECHANISM SLIDE/SUPPORT ASSEMBLY

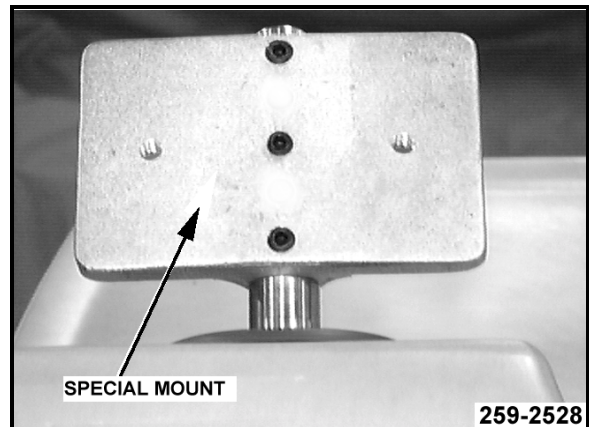
**WARNING:** UNPLUG UNIT BEFORE SERVICING.

### Disassembly

1. Remove "KNIFE".
2. Remove "GAUGE PLATE".

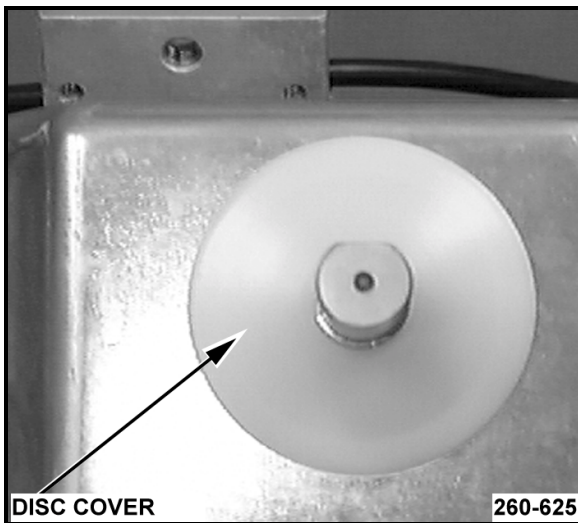
**NOTE:** When the three set screws in the special mount are tightened, torque them to 120 in.lbs.

3. Loosen three set screws to free special mount from index mechanism slide.



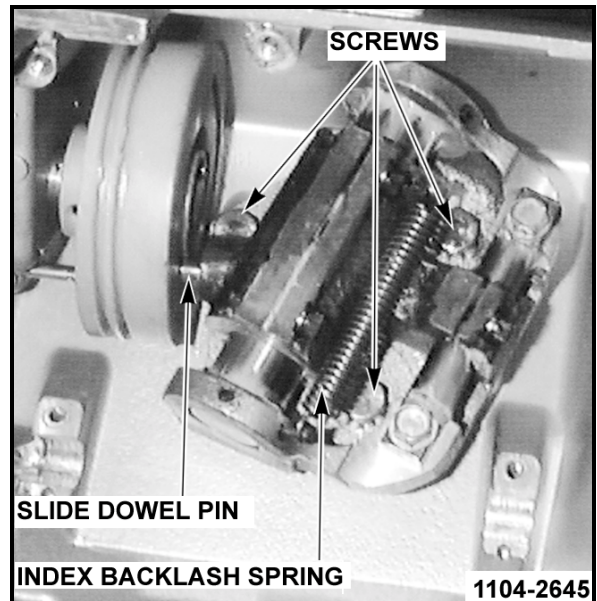
- A. Pull special mount from slide.

4. Pull disc cover from slide.

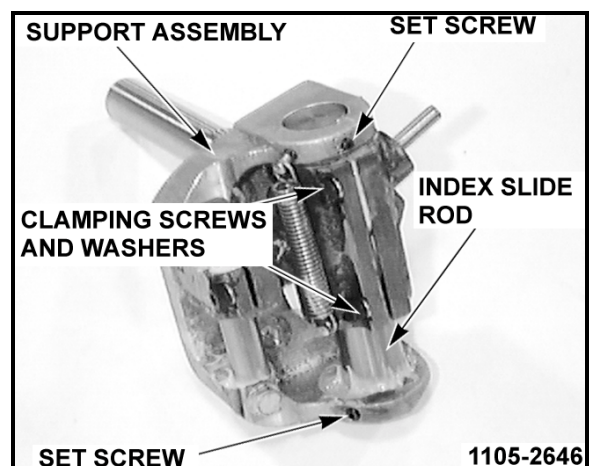


**NOTE:** When the drip ring is installed RTV 732 should be on the drip ring flange that is against the base.

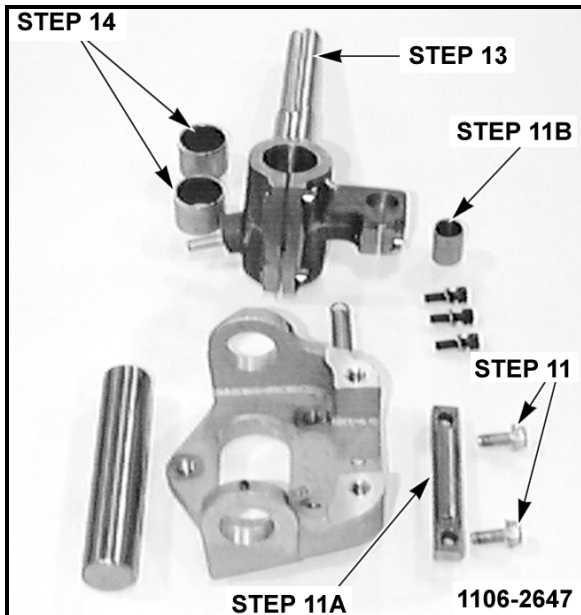
5. Pull drip ring from base.
6. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
7. Remove "PIVOTING INTERLOCK PLATE ASSEMBLY", steps 2, 3, 4 and 4A.
8. Remove nine screws holding transport roller bar to base and pull roller bar sideways to remove.
9. Turn index knob, as required, to access the three screws holding the index slide/support mechanism assemblies to the base and remove them.
  - A. Turn index knob to allow the most vertical movement of the slide dowel pin within the cam as possible.



- B. Gently tap the end of the index slide with a rubber mallet until the dowel pins on the slide index support clear the holes in the base.
  - C. Move the assemblies until the slide dowel pin is free of the cam and lift from base.
10. Remove index backlash spring.
11. Remove two screws and lockwashers to free anti-rotation index rod from support.
  - A. Remove clamp screw, washer and pull rod from slide.
  - B. Pull bushing from slide.
12. Remove two set screws in support assembly, two clamping screws and washers in slide and slide index slide rod from support.



13. Pull slide from support.
14. Pull bushings from slide.



### Assembly

1. Inspect index slide rod bores in support for burrs.
2. Inspect bushings for burrs.
3. Carefully insert the bushings (squeezing lightly) into the slide making them even with the edges of the casting.
4. Install the clamp screws and washers turning only until seated. **Do not tighten them at this time.**
5. Lubricate the bushings and index slide rod with Lubriplate 630AA.
6. Insert the index slide shaft through the opening in the support.
  - A. Insert the index slide rod through the support bore, index slide bushings and the other support bore.
  - B. Tighten the set screws in support to fix the slide rod in place.
7. Lubricate the anti-rotation rod with Lubriplate 630AA and insert into the slide bushing.
  - A. Insert the two mounting screws and lockwashers into the support **but do not tighten.**
8. Holding the assembly in place install the spring. The assembly should be pulled back by the spring to the gauge plate open position.
  - A. Holding assembly in the gauge plate open position (spring fully extended), tighten one of the two index slide rod clamp screws until the spring cannot pull back.
  - B. Slowly loosen screw to a point where the spring suddenly pulls back. **Do not tighten or loosen this screw anymore.**
  - C. Repeat steps 8A and 8B for the other index slide rod clamp screw.
9. Holding the assembly in the gauge plate open position (spring fully extended), tighten the anti-rotation rod clamp screw until the spring cannot pull back.
  - A. Tighten anti-rotation rod mounting screws.
  - B. Slowly loosen the anti-rotation rod clamp screw to a point where the spring suddenly pulls back. **Do not tighten or loosen this screw anymore.**
10. Reassemble in reverse order of "Disassembly" steps 9C-1.
11. Adjust "Gauge Plate and Index Knob".
12. Check unit for proper operation.

## INDEXING CAM

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "INDEX MECHANISM SLIDE/SUPPORT ASSEMBLY", steps 1-9C.

**NOTE:** In order to remove the rollpin in the cam, the index knob has to be turned so pin will clear the base.

2. Drive rollpin from cam.

**NOTE:** When the indexing cam is installed the grooves should be lubricated with Lubriplate 630 AA.

3. Pull index knob/shaft assembly outward until cam and two washers are freed from the cam shaft.
4. Reassemble in reverse order.
5. Adjust "GAUGE PLATE AND INDEX KNOB".
6. Check unit for proper operation.



## INDEX BEZEL

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "INDEXING KNOB/DIAL ASSEMBLY", steps 1-5.
2. Remove "LAMP (1PL)".
3. Pull the bezel from the cam shaft.
4. Reassemble in reverse order.
5. Adjust "GAUGE PLATE AND INDEXING KNOB".
6. Check unit for proper operation

## INDEXING KNOB/DIAL ASSEMBLY/CAM SHAFT ASSEMBLY

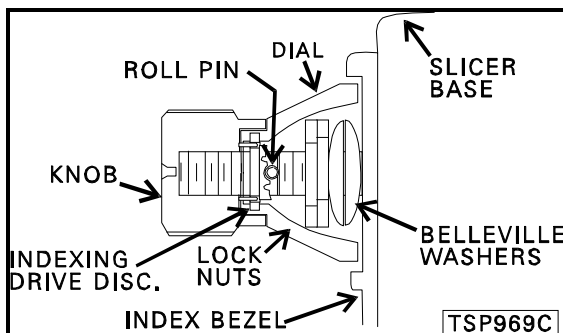
### Removal

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove indexing knob by removing screw in center.

**NOTE:** When the indexing knob and dial assembly are reassembled RTV 732 should be on the outline of the dial assembly where it meets the indexing knob.

2. Remove the dial assembly.
3. Remove indexing drive disc.
4. Remove indexing drive disc roll pin.
5. Remove two locknuts using special thin wrenches and Belleville washers.



6. Remove "INDEXING CAM", steps 1, 2 and 3.
7. Pull cam shaft from base and index bezel.

### Installation

1. Reverse removal steps 7 and 6.
2. Install the two Belleville washers.

**NOTE:** The concave surface of both washers should be toward each other.

3. Install the two locknuts. Tighten the locknuts until the shaft turns with slight resistance and lock the nuts together using special thin wrenches.
4. Install roll pin in cam shaft.
5. Install indexing drive disc.
6. Install the dial assembly and indexing knob and adjust "GAUGE PLATE AND INDEXING KNOB".
7. Check unit for proper operation.

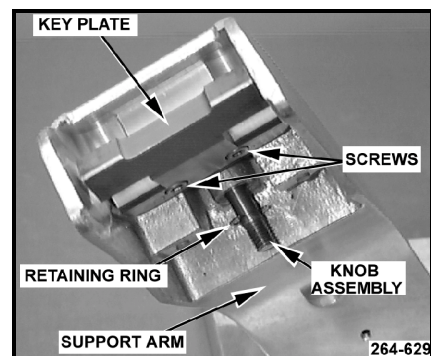
## TRAY SUPPORT ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** The keyplate is stamped with the last three numbers of the slicer serial number. If it is replaced, stamp these numbers on the replacement part.

1. Remove "CARRIAGE TRAY ASSEMBLY", steps 1-4.
2. Remove knob assembly by removing retaining ring and pulling from support arm.

**NOTE:** The key plate must be oriented as shown.



3. Remove key plate by removing two screws and prying off of the support arm.
4. Reassemble in reverse order.
5. Adjust "CARRIAGE TRAY ASSEMBLY".
6. Check unit for proper operation.

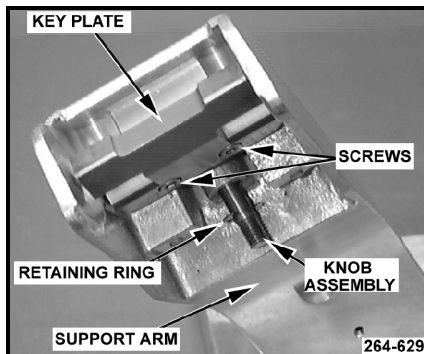
## (TRAY SUPPORT ASSEMBLY) KEY PLATE

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** The keyplate is stamped with the last three numbers of the slicer serial number. If it is replaced, stamp these numbers on the replacement part.

1. Perform "CARRIAGE TRAY ASSEMBLY" removal steps 1-3B.

**NOTE:** The key plate must be oriented as shown.



2. Remove key plate by removing two screws and prying off of the support arm.
3. Reassemble in reverse order.
4. Check unit for proper operation.

## (MEAT GRIP) KNOB AND SLIDE ROD ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

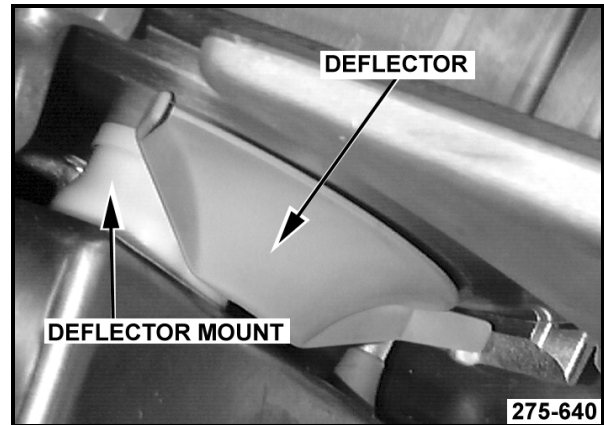
**NOTE:** Loctite No. 242 must be used on the threads of mounting stud when knob and slide rod assembly is reassembled.

1. Unscrew knob and slide rod assembly from handle and slide rod support.
  - A. Slide meat grip assembly and washer from knob and slide rod.
2. Reassemble in reverse order.
3. Check unit for proper operation.

## DEFLECTOR

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Roll deflector away from deflector mount to remove.



2. Reassemble by guiding the deflector to the mount and rotating it towards the knife.
3. Check unit for proper operation.

## CARRIAGE TRAY ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Turn index knob to below 0 position.
2. Place the carriage tray assembly in the home position.
3. Unscrew the tray support assembly knob.
  - A. Tilt the carriage tray and tray support assembly to the right until it stops.
  - B. Grasp assembly with both hands and lift straight up.

**NOTE:** Apply silicone RTV 732 to seal between the carriage tray assembly and tray support assembly when reassembling.

4. Remove four screws and washers to free carriage tray assembly from tray support assembly.



5. Remove "(MEAT GRIP) KNOB AND SLIDE ROD ASSEMBLY".

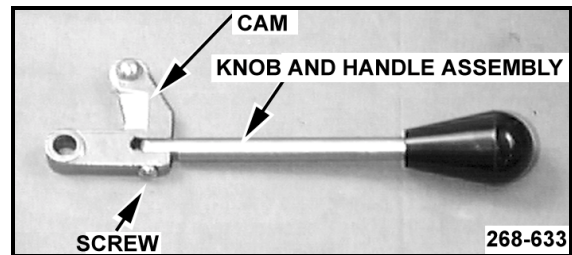
**NOTE:** Apply silicone RTV 732 to seal between the handle and slide rod support and the carriage tray, also between the meat grip hanger and the carriage tray when reassembling.

6. Remove two screws to free meat grip hanger from carriage tray.
7. Remove "HANDLE AND SLIDE ROD SUPPORT/HANDLES".
8. Reassemble in reverse order.
9. Adjust "CARRIAGE TRAY ASSEMBLY".
10. Check unit for proper operation.

## (SHARPENER) CAM, HANDLE AND KNOB SUB-ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "SHARPENER HOUSING BASE", steps 1 and 2.
2. Remove screw to free knob and handle assembly from the cam.



**NOTE:** When reinstalling screw torque to 1.5 in.-lbs.

3. Reassemble in reverse order.
4. Check unit for proper operation.

## MEAT GRIP ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "(MEAT GRIP) KNOB AND SLIDE ROD ASSEMBLY", steps 1 and 1A.
2. Remove screw, retaining washer and handle tension washer from end of meat grip handle.
3. Remove handle, handle washer and meat grip from the meat grip arm.

**NOTE:** The meat grip arm bushings should rotate freely in the assembly and have some end play. If these conditions are not present, the meat grip arm should be replaced.

If the meat grip was hard to rotate or would not rotate, the washers on each side of the meat grip arm should be replaced.

4. Remove the nyliner bushing from the meat grip arm.
5. Reassemble in reverse order.
6. Check unit for proper operation.

## (CARRIAGE TRAY) HANDLE AND SLIDE ROD SUPPORT/HANDLES

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

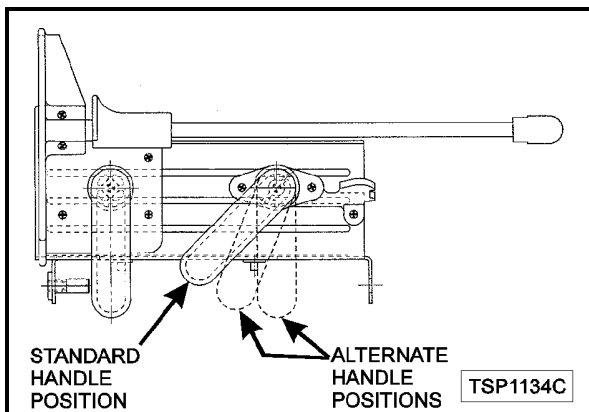
1. Remove "(MEAT GRIP) KNOB AND SLIDE ROD ASSEMBLY".

**NOTE:** Apply silicone RTV 732 to seal between the handle and slide rod support and the carriage tray when reassembling.

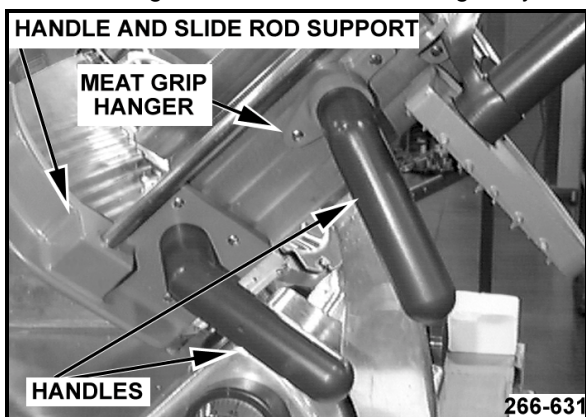
2. Remove five screws to free handle and slide rod support and handle from carriage tray.

**NOTE:** Apply silicone RTV 732 to seal between the meat grip hanger and the carriage tray when reassembling.

(2812 and 2912) The carriage tray handle mounted at the meat grip hanger can be installed in one of three positions. Take note of the position of the handle before removing it. Refer to "CARRIAGE TRAY HANDLE POSITIONING".



- A. Remove three screws to free meat grip hanger and handle from carriage tray.



3. Remove screw and pull handle from support and meat grip hanger (2812 and 2912).
4. Reassemble in reverse order.
5. Check unit for proper operation.

## POLY-V-PULLEY (KNIFE SHAFT)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove the "KNIFE".
2. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
3. Perform "POLY-V BELT" removal, steps 2-2C.
4. Perform "KNIFE SHAFT ASSEMBLY/LOWER HUB AND BEARING RETAINER REMOVAL", steps 4-4C.
5. Reassemble per "KNIFE SHAFT ASSEMBLY/LOWER HUB AND BEARING RETAINER INSTALLATION", STEPS 4-7.
6. Reinstall top knife cover.
7. Continue reassembly in reverse order steps 3 and 2.
8. Adjust "POLY-V BELT TENSION" and check "PULLEY ALIGNMENT".
9. Check unit for proper operation.

## SHARPENER HOUSING BASE

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**WARNING:** THE SLICER KNIFE IS VERY SHARP. EXERCISE EXTREME CAUTION WHEN WORKING NEAR THE KNIFE.

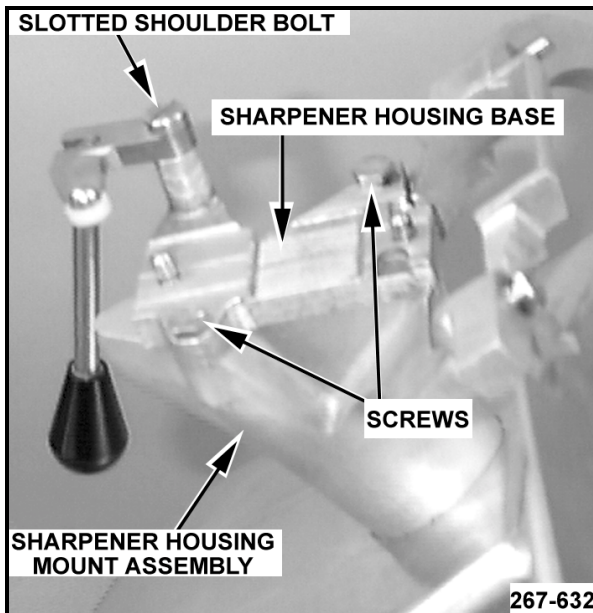
1. Remove "KNIFE SHARPENER".

**NOTE:** When slotted shoulder bolt is installed it is torqued to 57.6 in.lbs.

2. Remove slotted shoulder bolt to free cam, handle and knob assembly from housing base.



3. Remove two screws to free sharpener housing base from sharpener housing mount assembly.

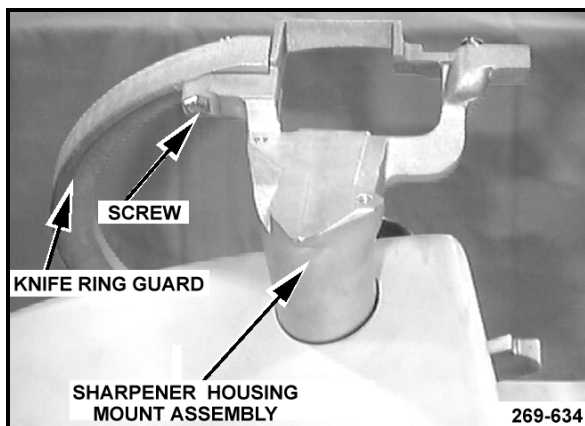


4. Reassemble in reverse order.
5. Adjust "SHARPENER".
6. Check unit for proper operation.

### SHARPENER HOUSING MOUNT ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

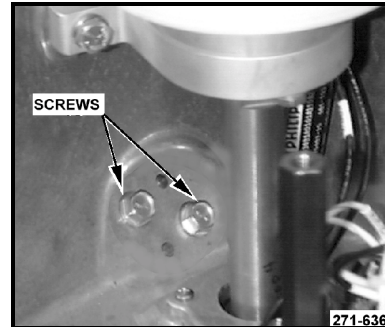
1. Remove the "KNIFE".
2. Remove "SHARPENER HOUSING BASE".
3. Remove screw to free housing mount from knife ring guard.



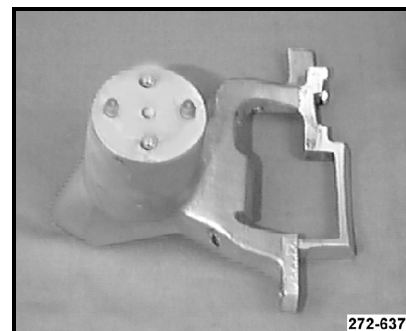
4. Remove "KNIFE DRIVE MOTOR", steps 1-5A.

**NOTE:** When the sharpener housing mount assembly is installed a bead of RTV 732 should be run around the outline to seal part to base.

5. Remove two screws holding housing mount to base.



- A. Pull housing mount from base.

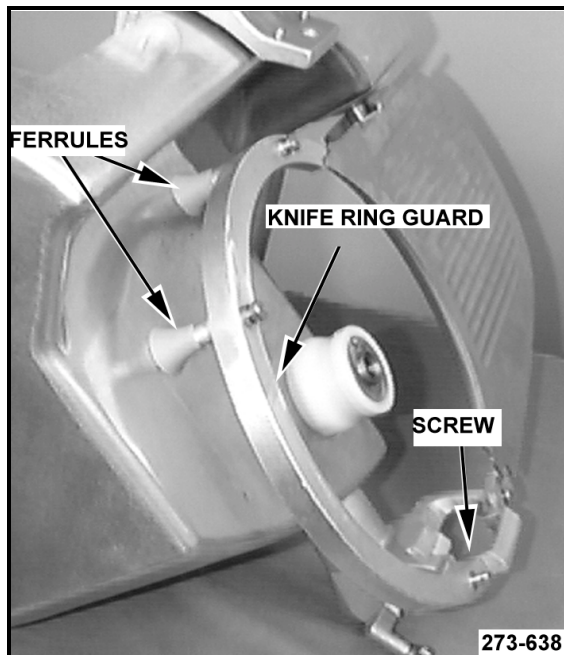


6. Reassemble in reverse order.
7. Adjust "POLY-V BELT TENSION" and "SHARPENER".
8. Check unit for proper operation.

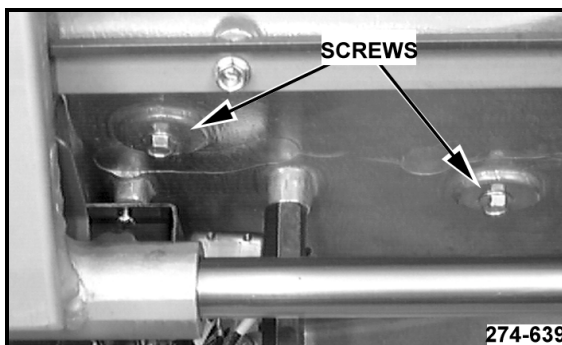
## KNIFE RING GUARD

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "KNIFE".
2. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
3. Remove screw to free knife ring guard from sharpener housing mount assembly.



4. Remove two screws to free ring guard from base.
  - A. Pull ring guard ferrules from ring guard.



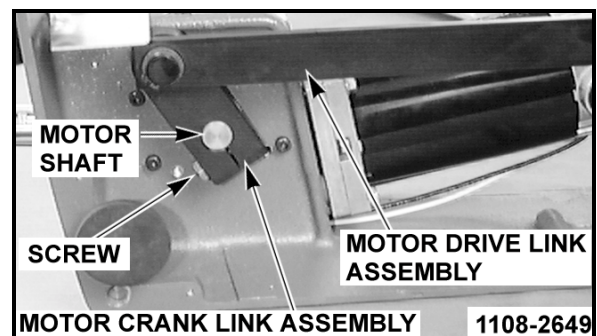
**NOTE:** When knife ring guard/ferrule assembly is installed RTV 732 should be on the bottom outline of the ferrules.

5. Reassemble in reverse order.
6. Check "HEIGHT OF RING GUARD TO KNIFE FACE".
7. Check unit for proper operation.

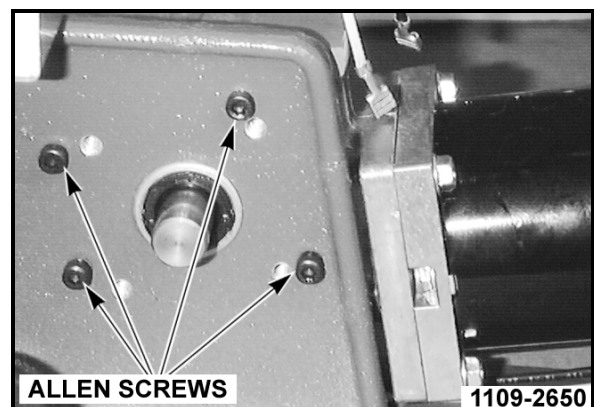
## 2712 AND 2912 AUTOMATIC MOTOR/MOTOR BRUSHES

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-6, 8 and 8A.
2. To replace motor brushes unscrew two hole plugs and pull brushes from rear motor cover.
3. To replace motor disconnect motor wires in speed selector switch cavity and pull them from half grommet.
4. Loosen screw in motor crank link assembly.



5. Remove retaining ring where carrier link assembly is attached to the main link assembly.
  - A. Pull motor crank link/carrier link assemblies from main link assembly and automatic motor shaft.
6. Remove four Allen screws and pull automatic motor from base.

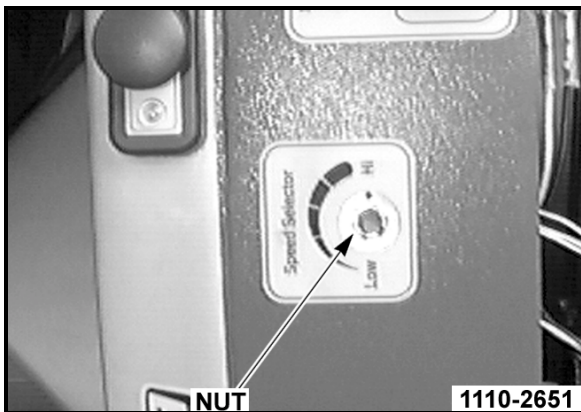


7. Reassemble in reverse order placing the end of the motor shaft even with the surface of the motor crank link assembly.
8. Check unit for proper operation.

## 2712 AND 2912 CARRIAGE SPEED SWITCH ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-7.
2. Disconnect switch assembly wires.
3. Pull knob from switch.
4. Unscrew nut and pull switch from base.



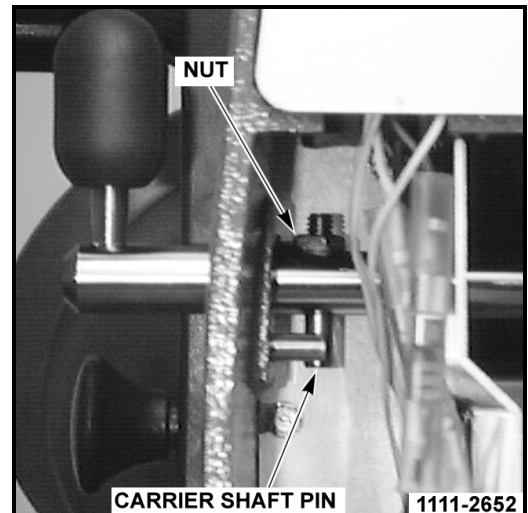
5. Reassemble in reverse order.
6. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC CARRIER SHAFT

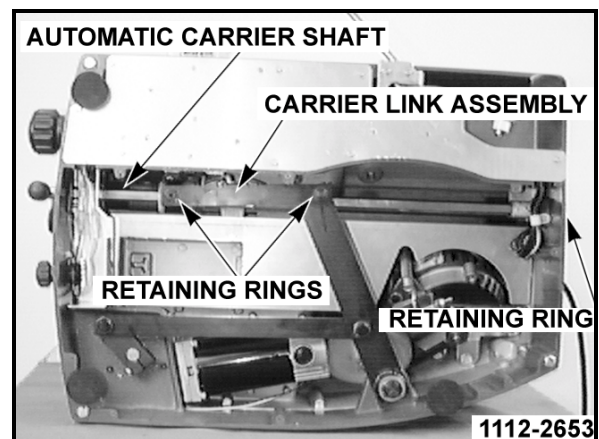
**WARNING:** UNPLUG UNIT BEFORE SERVICEING.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-6.
2. Remove nut on carrier shaft pin.

- A. Unscrew pin from shaft.



3. Remove retaining rings holding carrier link assembly to automatic carrier swivel and main link and pull link off.



4. Remove plug in base.
  - A. Remove retaining ring on shaft.

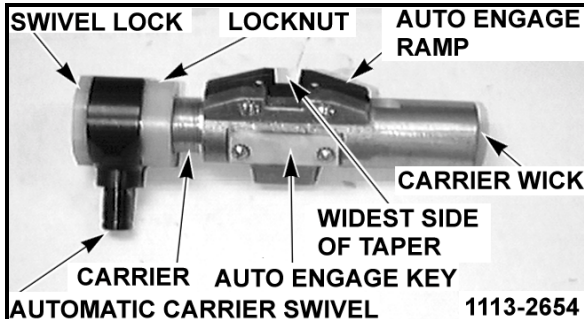
**NOTE:** Before removing the automatic/manual lock from the shaft observe how the lock interacts with the lock spring in both the manual and automatic positions. If installed incorrectly this interaction will not be correct.

5. Holding knob and lever assembly pull shaft outward far enough to allow removal of the automatic/manual lock, retaining ring and automatic carrier assembly.
6. Unscrew knob and lever assembly from base.
7. Reassemble in reverse order.
8. Check unit for proper operation.



## 2712 AND 2912 AUTOMATIC CARRIER ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

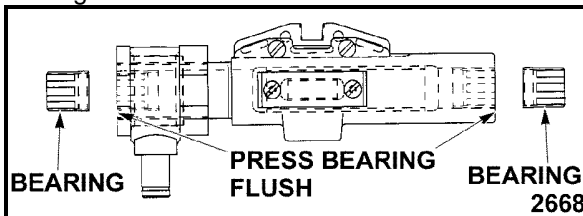


1. Perform "AUTOMATIC CARRIER SHAFT" removal, steps 1-5.

**NOTE:** When the auto engage ramp is reinstalled the widest side of the taper must be away from the auto engage key.

2. Remove two screws and washers to free auto engage ramp from automatic carrier.

**NOTE:** When the carrier bearings are pressed into the automatic carrier they should be pressed flush with end of carrier. They should be oriented for pressing as shown.



3. Press carrier bearings from automatic carrier.

**NOTE:** Prior to reinstalling the wick saturate it with Lubriplate FMO 200 AW.

4. Pull carrier wick from inside carrier.

**NOTE:** When reinstalling engage key torque screws to 21 in.-lbs.

5. Remove two screws and lockwashers and pull auto engage key from carrier.

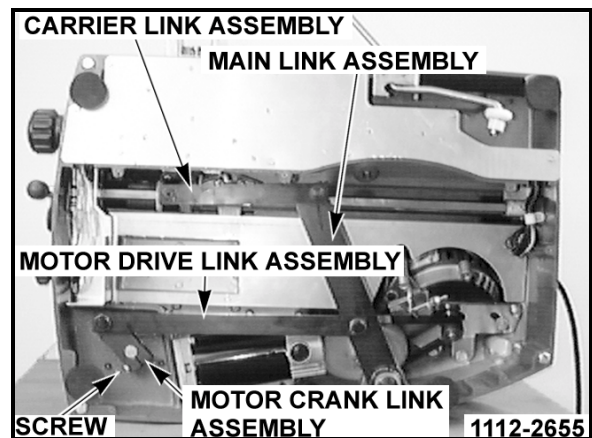
**NOTE:** When the locknut, swivel and swivel lock are installed a couple of threads of the swivel lock should be showing as an adjustment starting point for the automatic carrier assembly travel adjustment. The recessed area of the locknut must face toward the swivel lock.

6. Unscrew swivel lock from carrier and pull automatic carrier swivel from carrier.
  - A. Unscrew swivel locknut from carrier.

7. Reassemble in reverse order, steps 6-1 except do not perform step 1 of "AUTOMATIC CARRIER SHAFT".
8. Adjust "AUTOMATIC CARRIER ASSEMBLY TRAVEL".
9. Reassemble in reverse order "AUTOMATIC CARRIER SHAFT", step 1.
10. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC DRIVE LINKAGE ASSEMBLIES

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

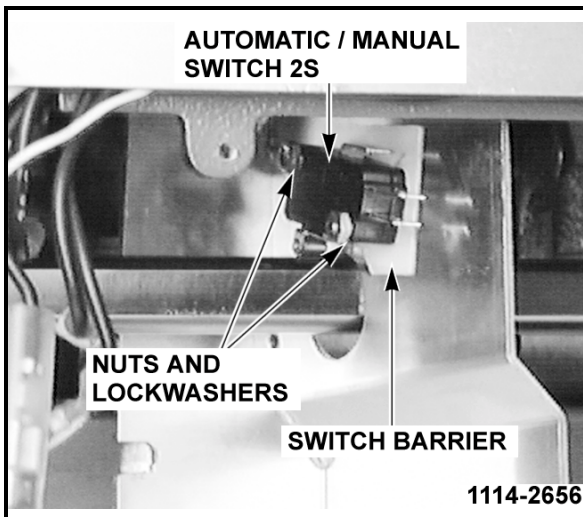


1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", step 1-6.
2. Remove retaining ring(s).
  - A. Motor crank link assembly remove screw.
3. Pull assembly off.
  - A. Remove bearing(s).
4. Reassemble in reverse order, pressing bearing(s) in place.
5. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC/MANUAL SWITCH 2S (ENGAGE)

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-6.
2. Loosen two screws holding switch mounting bracket to base.
  - A. Slide mounting bracket sideways on automatic carrier shaft until wires, switch nuts and screws can be accessed.
3. Disconnect wires from switch.

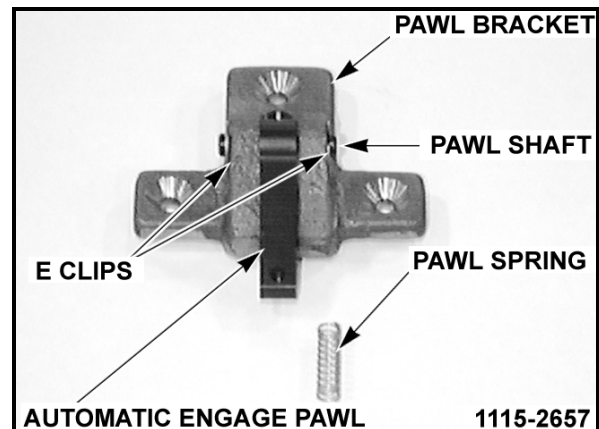


4. Remove two screws, nuts and lockwashers to free switch and mylar switch barrier from switch bracket.
5. Reassemble in reverse order steps 4-2, leaving switch nuts loose.
6. Adjust "AUTOMATIC/MANUAL SWITCH".
7. Reassemble in reverse order, step 1.
8. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC ENGAGE PAWL ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. Remove three screws to free automatic engage pawl assembly and pawl spring from transport assembly.



3. Remove "E" clips and pull pawl shaft from pawl bracket freeing pawl.
4. Reassemble in reverse order.
5. Check unit for proper operation.

## 2712 AND 2912 PRINTED CIRCUIT BOARD ASSEMBLY

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**CAUTION:** Certain components in this system are subject to damage by electrostatic discharge during field repairs. A field service grounding kit is available to prevent damage. The field service grounding kit must be used anytime the components are handled.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 7.
2. Note the location of the wires and disconnect them.
3. Remove the mounting hardware to free the board from the electrical cover assembly.
4. Reassemble in reverse order.
5. Check unit for proper operation.

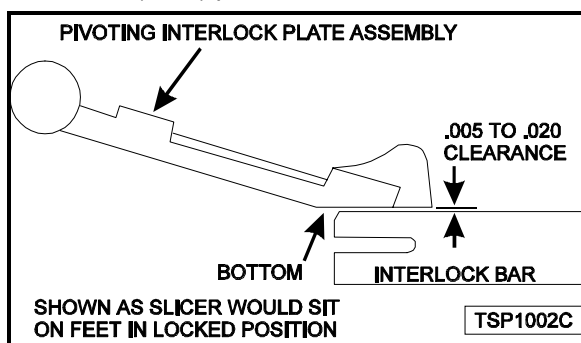
# SERVICE PROCEDURES AND ADJUSTMENTS

## CARRIAGE TRANSPORT ASSEMBLY ADJUSTMENTS

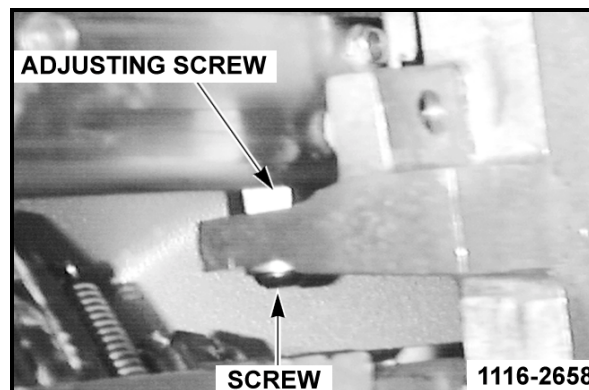
**NOTE:** The carriage transport assembly is adjusted properly when the (2812 and 2912) interlock bar clears the bottom of the pivoting interlock plate assembly by .005" to .020" when in the locked position. The interlock bar clears the edge of the lockout bar during carriage movement by a maximum of .030" but with no interference. The overturn screw is within .003" to .005" of the transport roller bar. These adjustments should be performed in the order of this writeup and all should be checked anytime an adjustment is made. **After the transport assembly is adjusted properly check the carriage tray adjustments.**

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

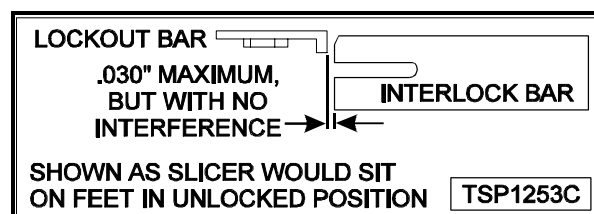
1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. (2812 and 2912) Loosen the four screws holding the lockout bar to the base.
  - A. Lift the lockout bar upward to its highest position and tighten the four screws.
3. (2812 and 2912) To adjust the interlock bar clearance of .005" to .020" to the bottom of the pivoting interlock plate assembly position the carriage transport assembly in the home and locked (tilted) position.



- A. Loosen the screw holding the roller bearing assembly to the carriage transport assembly using the special Allen wrench.

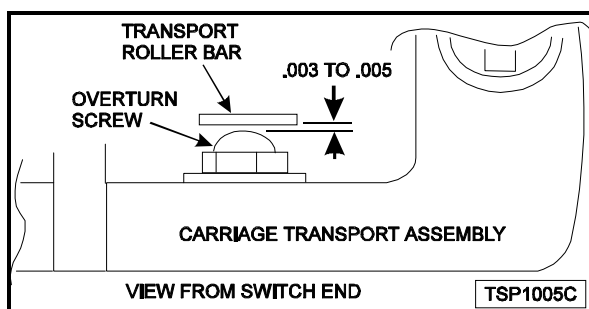


- B. Turn the adjusting screw until the interlock bar clears the bottom of the pivoting interlock plate assembly by .005" to .020" and tighten the screw.
4. (2812 and 2912) To adjust the interlock bar clearance of .030" maximum but with no interference to the edge of the lockout bar remove two screws holding transport cover to transport.



- A. Using the key plate move the interlock bar to the operating position and move the carriage transport assembly away from the home position.
- B. Turn the interlock bar shaft until the interlock bar clearance to the edge of the lockout bar is .030" maximum but with no interference.
- C. Reinstall transport cover to transport.

5. To adjust the overturn screw within .003" to .005" of the transport roller bar loosen the locknut and turn the overturn screw until the proper clearance is present.



A. Tighten the locknut.

6. Using key plate move the carriage transport assembly out of the interlocked position and move it back and forth its full travel, placing it in and out of the interlocked position, checking for proper movement and interlocking.
7. Reassemble in reverse order, step 1.
8. Check "CARRIAGE TRAY ADJUSTMENT".
9. Check unit for proper operation.

## TOP KNIFE COVER FIT

### General

**NOTE:** Read this entire procedure BEFORE checking. Perform this check on new slicers; anytime a new knife is installed; if the product is going under the top knife cover; or if the product is being torn by the top knife cover.

The top knife cover and ring guard are designed to work without adjustments of any kind. You must check to be sure the top knife cover fits properly when installed, but no adjustments can be made.

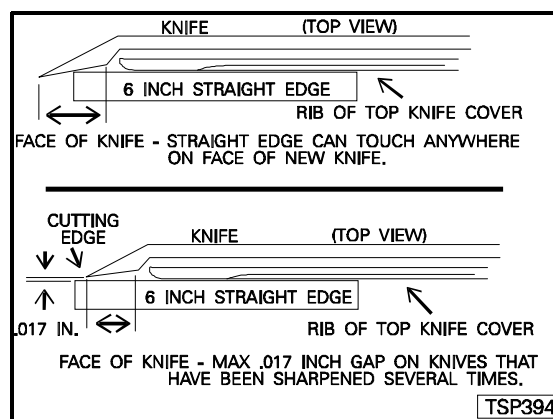
### Checking Fit

**WARNING:** THE SLICER WILL BE OPERATING FOR PORTIONS OF THIS CHECK. MAKE CERTAIN THAT THE GAUGE PLATE IS COMPLETELY CLOSED ANYTIME THE SLICER IS RUNNING.

**WARNING:** THE SLICER KNIFE IS VERY SHARP. EXERCISE EXTREME CAUTION WHEN WORKING NEAR THE KNIFE.

1. Remove "CARRIAGE TRAY ASSEMBLY".
2. Use the key plate to allow the slicer to be started.
3. Check to ensure the top knife cover is in the locked position. Rotate the knob ccw to unlock. Release the knob. The knob should rotate under spring tension to the locked position. Rotate the knob cw 1/16th to 1/8th turn beyond this point.

4. Turn slicer on.
5. Lay a six inch straight edge on a rib near the center of the top knife cover and slowly move it toward the knife until the straight edge touches the face of the knife or the leading edge of the straight edge extends beyond the cutting edge of the knife.
  - A. If the straight edge touches, repeat step 5 on ribs at the top and bottom ribs of the top knife cover.
  - B. If the straight edge does not touch the face of the knife at the test point, turn the slicer off and verify that the thrust plug height has been adjusted properly as outlined under "THRUST PLUG ADJUSTMENT".
    - 1) If the thrust plug is not properly adjusted, adjust it and repeat steps 3 through 5.
    - 2) If the thrust plug is properly adjusted and the top knife cover is properly installed, determine the diameter of the knife. A new knife should be 11-3/4". A knife less than 11-1/2" should be replaced.
      - a. If the knife is new, the straight edge must touch the face of the knife. If the straight edge does not touch the face of the knife, replace the top knife cover.
      - b. If the diameter of the knife is greater than 11-1/2" but less than 11-3/4", the straight edge may not touch the face of the knife. The leading end of the straight edge should never be more than .017" above the cutting edge of the knife. If the straight edge is more than .017" above the cutting edge of the knife, replace the top knife cover.
6. If the above procedure does not result in satisfactory performance, replace the ring guard and recheck.
7. Turn the slicer off.





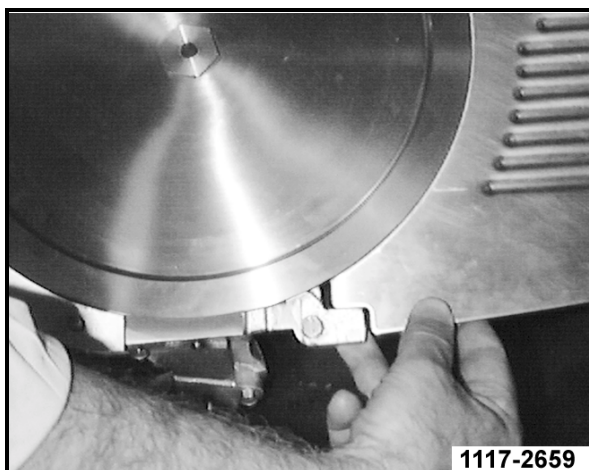
## INDEX SLIDE MECHANISM ADJUSTMENT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**WARNING:** THE KNIFE WILL BE EXPOSED AT TIMES DURING THIS ADJUSTMENT PROCEDURE. EXERCISE EXTREME CAUTION WHEN WORKING NEAR THE KNIFE.

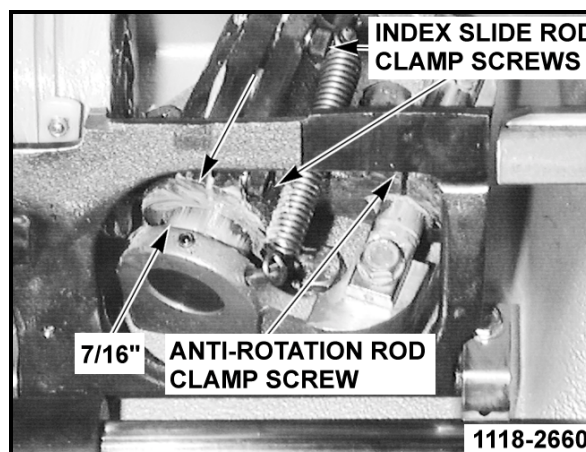
**NOTE:** The index slide, slide rod and anti-rotation rod must be lubricated with Lubriplate 630AA for the index slide mechanism to operate properly.

**NOTE:** When the index slide mechanism is properly adjusted there will be no backlash, binding or skipping in the mechanism throughout its travel. With the index knob at the below "0" position, check for freeplay by grasping the gauge plate in the area shown and attempting movement of the gauge plate front to back and side to side. There should be no freeplay in the index slide mechanism. You will experience deflection of the gauge plate depending on the force applied, but there should not be any mechanism freeplay.



1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. Move the transport assembly to expose the index slide mechanism (2812 and 2912 use transport key tool to accomplish this).
3. Loosen the two index slide rod clamp screws and the anti-rotation rod clamp screw.

4. Turn the index knob until the dimension shown is present (knife exposed).



5. Tighten one of the index slide rod clamp screws until the index mechanism will not move when the index knob is turned.
  - A. Slowly back off the clamp screw until you notice the spring tension release and/or movement of the mechanism. Do not tighten or loosen this screw anymore.
6. Repeat steps 4 and 5 for the other index slide rod clamp screw and the anti-rotation clamp screw.
7. Turn the index knob to the below "0" position.
8. Grasp the gauge plate and check for index slide mechanism freeplay. If freeplay is present, check the index slide anti-rotation rod mounting screws and slide support mounting screws for tightness.
  - A. Repeat step 8. If freeplay is still present, the mechanism must be readjusted or repaired.
9. Turn the index knob through its travel checking the index slide mechanism for backlash, binding or skipping.
  - A. If backlash, binding or skipping is present, repeat steps 3-8.
10. Reassemble in reverse order, step 1.
11. Check "GAUGE PLATE AND INDEXING KNOB ADJUSTMENT".
12. Check unit for proper operation.



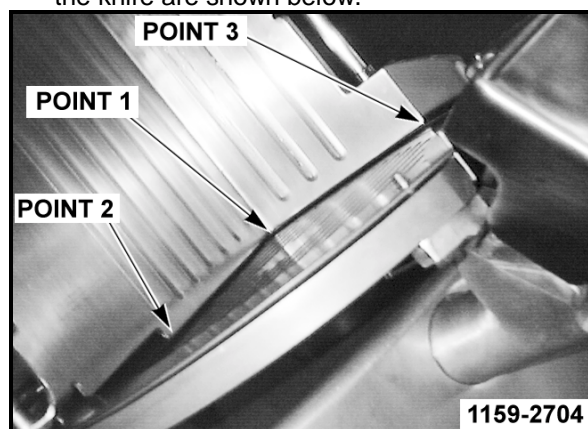
## CARRIAGE TRAY ASSEMBLY ADJUSTMENTS

**NOTE:** The “GAUGE PLATE AND INDEXING KNOB” adjustments must be correct before adjusting the carriage tray assembly. Check the “TOP KNIFE COVER FIT”. The carriage tray assembly is adjusted properly when the tray “V” has .040" min. to .062" max. clearance between the bottom end of the carriage tray, and the knife and the gap of the tray edge is adjusted within .030" maximum difference to each other at three points. All of the above adjustments should be checked anytime an adjustment is made. Adjusting the proper combination of the two adjusting screws on the carriage transport assembly that interact with the tray support assembly, and/or movement of the tray when the four mounting screws holding it to the tray support assembly are loosened, will bring a given dimension within the required tolerance.

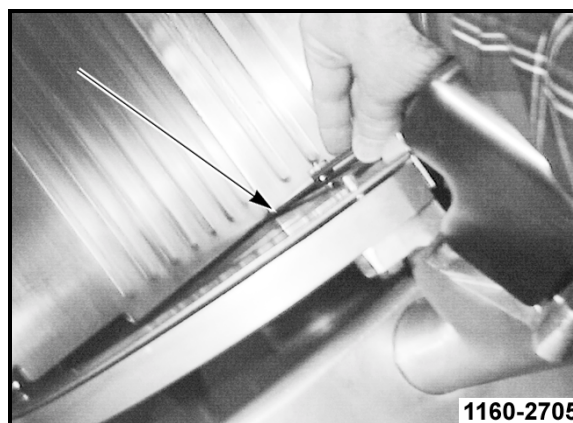
### Adjustment Verification

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. With the carriage tray assembly securely attached to the transport assembly, verify the tray adjustment by doing the following.
2. The three points of measurement on the tray to the knife are shown below.



3. Move the tray until point 1 (tray “V”) is above the knife.
  - A. Measure with a feeler gauge on top of the knife to the bottom end of the tray looking for .040" min. to .062" max. clearance. Note the measurement.



- B. Move the tray until point 2 (leading edge of tray) is above the knife and measure that the clearance is within .030" max. difference of the noted measurement in step A. Note the measurement.
  - C. Move the tray until point 3 (upper tip of tray wall) is above the knife and measure that the clearance is within .030" max. difference of the noted measurements in steps A and B.
  - D. Confirm that the measurement at points 1, 2 and 3 are within .030" max. difference of each other.
4. If any of the measurements are not within the tolerances the carriage tray must be adjusted.

### Adjustment

**NOTE:** Anytime the tray assembly is split from the tray support for adjustment RTV 732 must be reapplied to seal the two assemblies together.

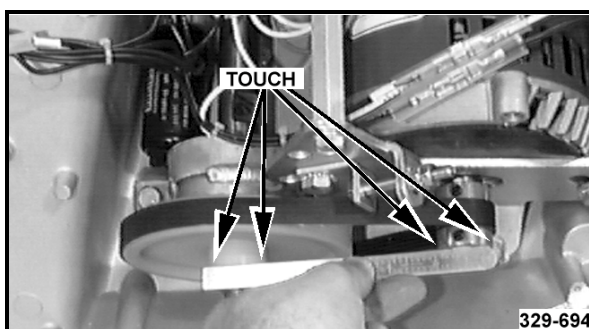
1. Loosen the four screws holding the tray to the tray support and split them apart.
2. Loosen the two locknuts on the adjusting screws on the carriage transport assembly.
3. Follow the adjustment verification procedure, loosening and tightening the nuts, screws and positioning the tray until the proper tolerances are present.
4. Use RTV 732 to seal assemblies together.
5. Check unit for proper operation.

## PULLEY ALIGNMENT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** The pulley alignment should be checked every time preventive maintenance is performed and each time the belt or pulleys are removed or replaced. The "POLY-V BELT TENSION" should be checked before alignment of the pulleys.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 8-8B 1).
2. Check "POLY-V BELT TENSION".
3. Using a straight edge (6" scale) position it as shown below. The straight edge should touch the pulleys at the four points indicated.



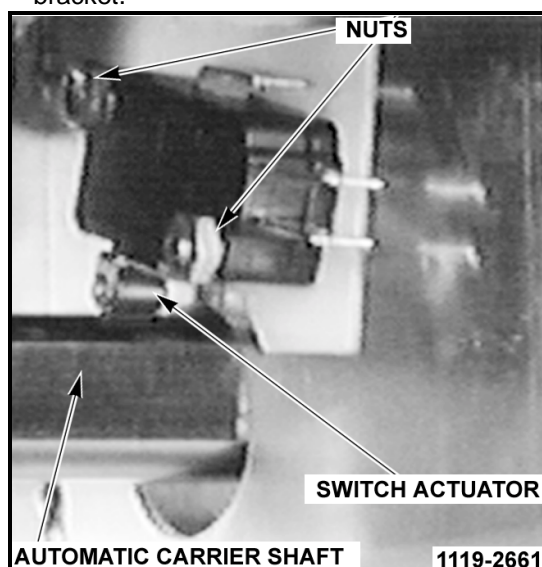
- A. If the pulleys are not touching the straight edge at all four points loosen the two set screws in the motor pulley and move the pulley in the required direction. Tighten the set screws.
  - B. Repeat steps 3 and 3A until the pulleys are aligned.
4. Reassemble in reverse order, step 1.
  5. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC/MANUAL SWITCH 2S (ENGAGE) ADJUSTMENT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** With the unit in manual the automatic/manual switch should be operated by the actuator being centered on top of the rounded portion of the automatic carrier shaft (normally open contacts of switch closed). When the unit is placed in automatic the switch actuator should be on the flat portion of the automatic carrier shaft (normally closed contacts closed). In the manual position the automatic motor is not energized and in the automatic position the automatic motor is energized.

1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-6.
2. Place the unit in manual.
3. Disconnect wires.
4. Loosen two nuts holding switch to mounting bracket.

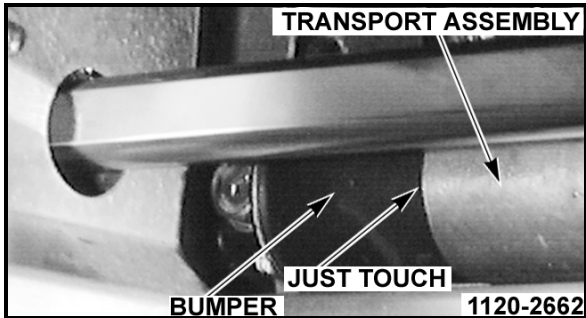


5. Pivot the switch until the actuator is centered on the rounded portion of the automatic carrier shaft and with a meter check that the switch is operated (normally open contacts closed).
  - A. Tighten the nuts.
6. Place the unit in automatic and confirm that switch actuator is on flat portion of shaft.
  - A. With a meter check that the switch is not operated (normally closed contacts closed).
7. Reassemble in reverse order.
8. Check unit for proper operation.

## 2712 AND 2912 AUTOMATIC CARRIER ASSEMBLY TRAVEL ADJUSTMENT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** The automatic carrier assembly is properly adjusted when with the unit in automatic the transport assembly just touches the slide rod bumper when it returns to the home position.



1. Perform "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-6.

**WARNING:** CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TESTS OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

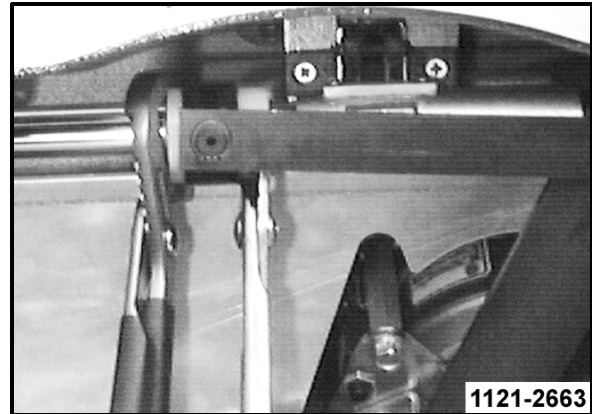
2. Power unit.

**NOTE:** (2912) in order to observe the transport assembly movement in automatic operation you will have to simulate having the carriage tray assembly installed by using the transport key tool.

3. (2912) read note and place unit in automatic.  
(2712) place unit in automatic.
  - A. Observe the interaction of transport assembly and slide rod bumper, looking for the transport assembly to just touch the bumper when it returns to the home position.
  - B. Unplug unit.

**NOTE:** By exposing more threads of the automatic carrier through the end of the swivel lock the transport will travel farther toward the (home position) slide rod bumper (less or no threads further away).

4. Screw the swivel lock and locknut in the direction determined in step 3A.

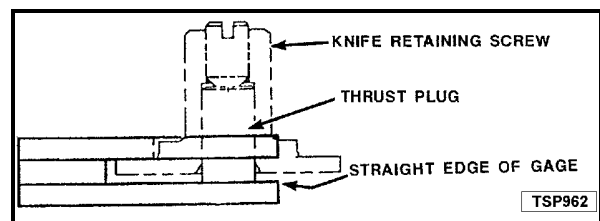


5. Repeat steps 2-4 until proper adjustment is achieved.
6. Reassemble in reverse order, step 1.
7. Check unit for proper operation.

## THRUST PLUG ADJUSTMENT

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove the "TOP KNIFE COVER".
2. Remove the knife retaining screw.
3. Insert the knife retaining screw into the thrust plug gage. The thrust plug should touch the bottom of the straight edge of the gage.
  - A. If the thrust plug hits the straight edge of the gage and will not fit under, turn the set screw counterclockwise and tap the thrust plug to seat it against the set screw until the thrust plug will fit under the straight edge of the gage.
  - B. If there is a gap between the thrust plug and the straight edge of the gage, turn the set screw clockwise until the thrust plug touches the straight edge of the gage.

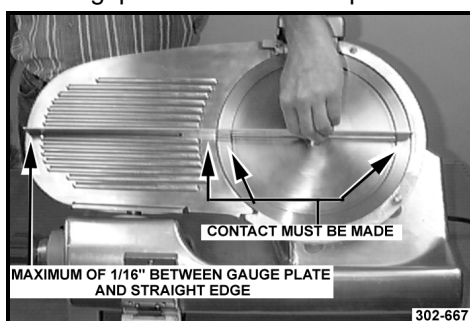


## GAUGE PLATE AND INDEXING KNOB

### Checks

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Check the alignment of gauge plate to knife.
  - A. Remove "TOP KNIFE COVER" and "CARRIAGE TRAY ASSEMBLY".
  - B. Install key plate and free the indexing knob.
  - C. Position gauge plate below the knife.
  - D. Position a straight edge to contact knife edge in two places near horizontal center.
  - E. Turn indexing knob until the gauge plate just contacts the straight edge. The entire surface of the gauge plate should contact the straight edge. If the gauge plate contacts the straight edge at the knife end and not the entire surface, a maximum of 1/16" gap is allowed at the operator end.



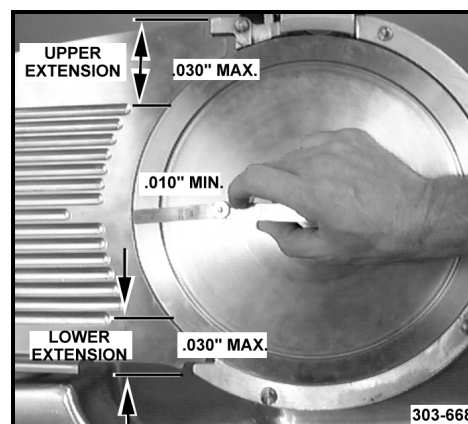
- F. Check to ensure the top and bottom extensions (above top rib and below bottom rib of the gauge plate) are equal in height to the knife (flush or above the knife).

**NOTE:** If top and bottom extensions are below knife edge, the gauge plate must be replaced.

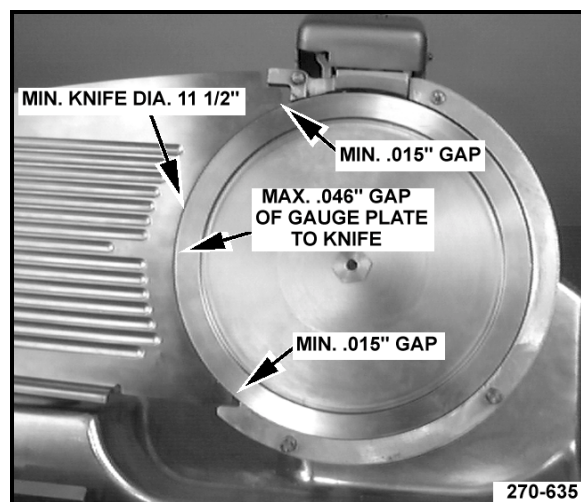
- G. With the straight edge still in contact with the knife and gauge plate, the index knob must be at zero.

**NOTE:** A maximum of 1/16" gap is allowed at the operator end of gauge plate.

- H. Turn indexing knob clockwise to the stop position. Gauge plate should now be a min. of .010" above cutting edge of knife between the upper and lower ribs. The upper and lower extensions may be a maximum of .030" above the knife



- I. Check the gap of the gauge plate to the knife at the horizontal centerline (max. .046") and at the tips (min. .015"). These dimensions can be present if a min. diameter knife 11-1/2" or larger is present.



### Adjustments

**NOTE:** If any adjustments are made, checks 1A through 11 must be performed.

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Gauge plate:

**NOTE:** If after performing the "GAUGE PLATE AND INDEXING KNOB CHECKS", dimensional adjustments are required do the following:

- A. Perform "GAUGE PLATE AND INDEXING KNOB CHECKS", steps 1-1E.

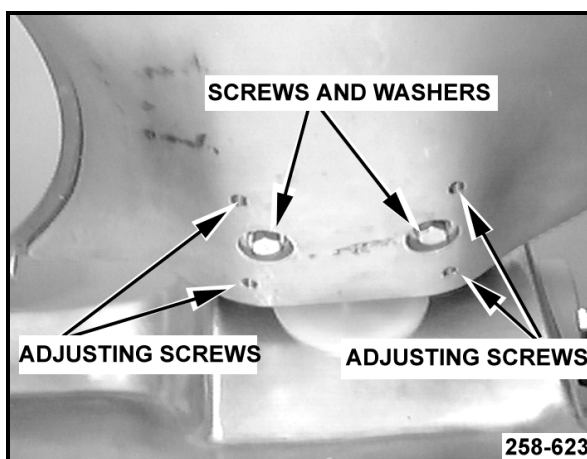


**NOTE:** Adjusting the proper combination of the four adjusting screws in the back of the gauge plate or loosening the gauge plate mounting screws to move it nearer or further away from the knife will bring a given dimension within the required tolerance.

The four adjusting screws should be viewed as being used as shims to achieve the required dimension(s). The screws are interacting with the special mount for the gauge plate.

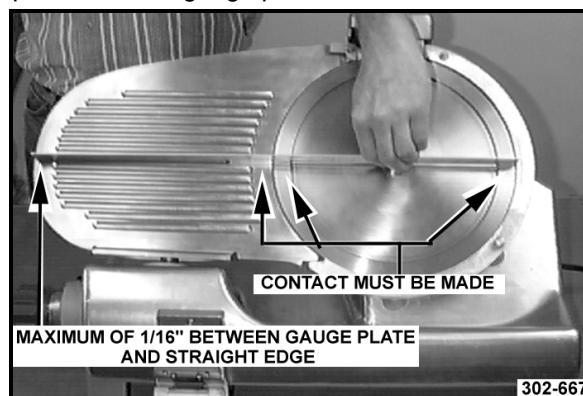
Before making any adjustments determine which screws need to be loosened so the appropriate screws can be tightened. This will prevent distortion of the gauge plate mount.

Example: Gauge plate is not a min. of .010" above the knife at below "0" position of knob. Loosen the two screws toward the knife and tighten the two screws toward the index knob.

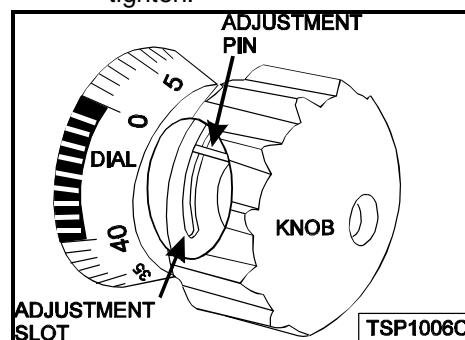


- B. Adjust gauge plate and perform "GAUGE PLATE AND INDEXING KNOB CHECKS". Continue steps 2A and 2B until properly adjusted.
2. Indexing knob:
  - A. If indexing knob is out of adjustment:
    - 1) Place straight edge on knife edge in two places near horizontal center, and bring gauge plate up to just contact straight edge.

**NOTE:** A maximum of 1/16" gap is allowed at the operator end of gauge plate.



- 2) Remove knob and remove the silicone holding the dial and knob together.
- 3) Apply silicone RTV 732 to the dial and knob and install the assembly, tightening to a point where the dial can be moved.
- 4) Move the dial to "0" position, and tighten.



- 5) Turn indexing knob clockwise to the stop position. The gauge plate should be a min. of .010" above cutting edge of knife. To check place a .010" feeler gauge on top of knife between the upper and lower ribs of the gauge plate. The gauge plate should be even with or above the feeler gauge on the knife.
3. Indexing knob/dial assembly gap to index bezel:

**NOTE:** When the index knob/dial assembly is properly installed the dial should be inside the recessed area of the bezel but must not interfere with the index bezel.

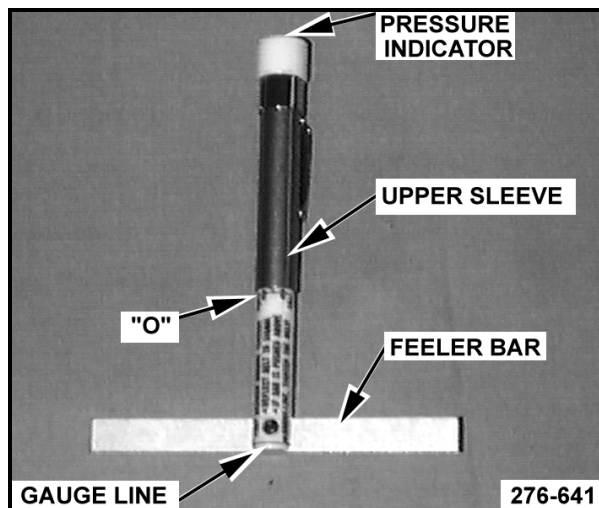
- A. Remove index knob/dial assembly by removing screw.
- B. Install indexing drive disc so that when the index knob/dial assembly is installed it will clear the index bezel, with the dial inside the recessed area of the bezel. Repeat steps 4 A. and B. as required.
4. Reassemble unit.
5. Check unit for proper operation.



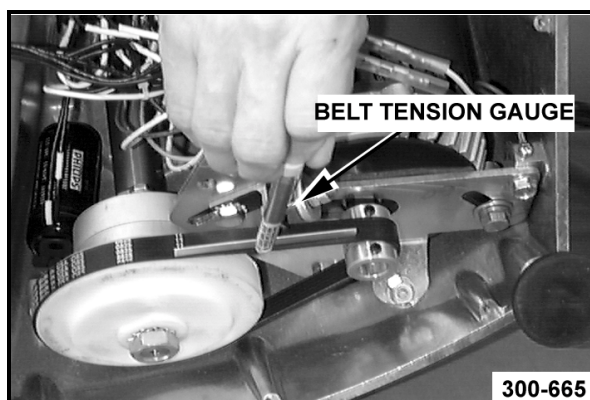
## POLY-V BELT TENSION

### Belt Tension Gauge Instructions

- Free feeler bar from carrying position by unscrewing the upper sleeve.



- Swing feeler bar into perpendicular (test) position.
- Pull feeler bar down. **This must be done before each test.**
- Turn upper sleeve until bottom of sleeve aligns with the required 50 Lbs. (New belt) or 35 Lbs. (used belt) of belt tension. Normal tensions are read on the black scale.
- Align feeler bar along middle of belt close to the center of the span between the center lines of the two pulleys.



- With a finger over the cap of the gauge, press down perpendicularly until you just feel the pressure indicator touch your finger. This will occur at the same time "0" is aligned with the bottom of the upper sleeve.
- Lift the gauge from the belt and observe where the bottom of the feeler bar has come to rest, in relation to the gauge line.
  - If the bottom is above the gauge line, pull feeler bar down, tighten belt tension and re-test.
  - If bottom is below the gauge line, pull feeler bar down, loosen belt tension and re-test.
  - If the bottom aligns with the gauge line, the proper tension is present.

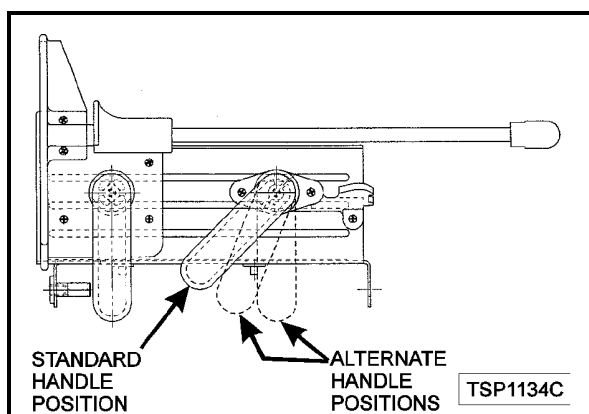
### Adjusting Belt Tension

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

- Perform "POLY-V BELT" removal, steps 1-3.
- Following the "Belt Tension Gauge Instructions" test the belt tension. If adjustment is required, do the following steps.
- Loosen the nuts on belt tensioning adjustment screw.
  - Perform "POLY-V BELT" removal steps 4A and 4B.
  - Pivot the motor in the proper direction by adjusting the belt tensioning adjustment screw and tighten the nuts.
    - Tighten the screws loosened in step 3A.
  - Re-test belt tension (step 2). Repeat steps 3-3C until the 50 Lbs. (new belt) or 35 Lbs. (used belt) belt tension is present.
- Check "PULLEY ALIGNMENT".
- Reassemble in reverse order, step 1.
- Check unit for proper operation.

## 2812 AND 2912 CARRIAGE TRAY HANDLE POSITIONING

**NOTE:** The carriage tray handle mounted at the meat grip hanger location can be installed in one of three positions.



**WARNING:** UNPLUG UNIT BEFORE SERVICING.

**NOTE:** There is silicone RTV 732 as a seal between the meat grip hanger and the carriage tray assembly. It must be reapplied.

1. Remove two screws to free meat grip hanger and handle from carriage tray assembly.

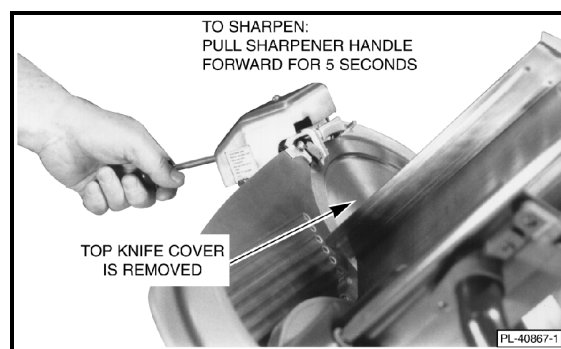


2. Remove screw and pull handle from meat grip hanger.
  - A. Position handle at the new position and press onto the meat grip hanger key.
  - B. Reinstall screw and tighten.
  - C. Reassemble meat grip hanger and handle to carriage tray assembly.
3. Check unit for proper operation.

## KNIFE SHARPENING

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

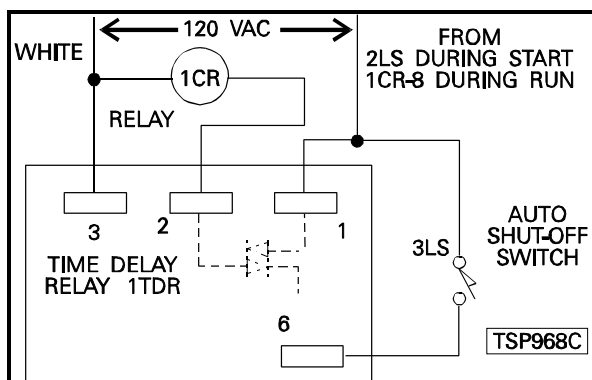
1. Turn the index knob fully clockwise which will close the gauge plate.
2. Remove the top knife cover by rotating the latch knob counterclockwise and lifting up and off.
3. Thoroughly wash the area around the knife, the exposed knife surfaces and the knife edge. Grease should not be allowed to transfer from the knife to the sharpener.
4. Plug in power cord and with the carriage in the home position, (2612 and 2712) pull the start switch, (2812 and 2912) pull and hold in the start position.



5. With your left hand, lift the sharpener handle until horizontal and pull forward until it stops, applying pressure for 5 seconds. Release sharpener handle slowly. If necessary, repeat sharpening for another 5 seconds.
6. Turn the slicer off.
7. Unplug power cord.
8. Wipe the slicer with a clean damp cloth to remove any grinding particles.
9. Reinstall the Top Knife Cover.

## TIME DELAY RELAY (1TDR) TEST (OPTION 2812 AND 2912)

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5 and 7.
2. Turn slicer on.
3. Test for 120VAC between 1TDR-2/3 during the first 10 seconds (approximately) of operation. If 120VAC is not present:
  - A. Test for 120VAC across 1TDR-1/3.
    - 1) If voltage is present, go to B.
    - 2) If voltage is not present, continue steps to identify and correct problem.
  - B. Test relay 1CR.
4. After 10 seconds, with no carriage movement, there should be near 0 volts across 1TDR-2/3.
5. Turn slicer on and before 10 seconds, operate the carriage so that the magnet passes in front of 3LS. This should reset the time delay.
  - A. 120VAC should be present across 1TDR-2/3 for approximately 10 seconds after the magnet has passed 3LS.
    - 1) If time delay does not reset, disconnect the lead wire from 3LS to 1TDR-6. Check for voltage across 1TDR-3 and lead wire to 3LS when the magnet is in front of 3LS.
      - a. If voltage is present, replace 1TDR.
      - b. If voltage is not present, check circuit which includes 3LS.



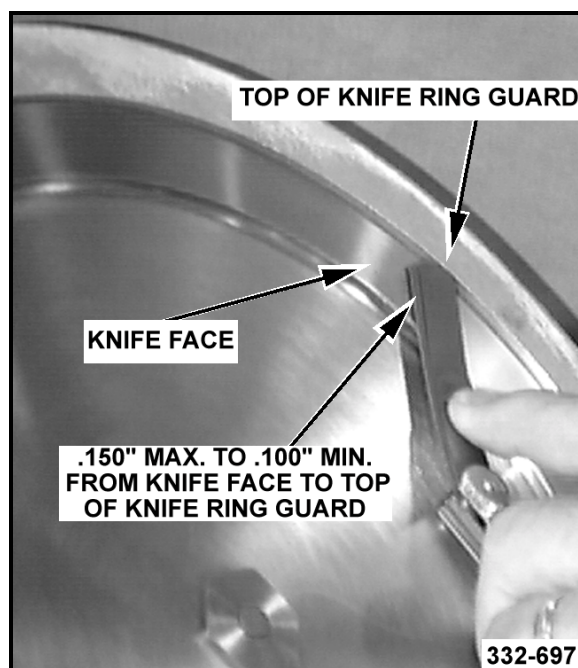
6. Turn slicer off.
7. Reassemble in reverse order step 1.
8. Check unit for proper operation.

## HEIGHT OF KNIFE RING GUARD TO KNIFE FACE

**NOTE:** When replacing or removing a knife shaft assembly, lower hub and bearing retainer, knife or knife ring guard the height of the ring guard to knife face should be checked (.150" max. to .100" min.). Before checking for this dimension refer to "KNIFE SHAFT ASSEMBLY/LOWER HUB AND BEARING RETAINER" installation, step 7 to verify there is no end play in knife shaft.

**WARNING:** UNPLUG UNIT BEFORE SERVICING.

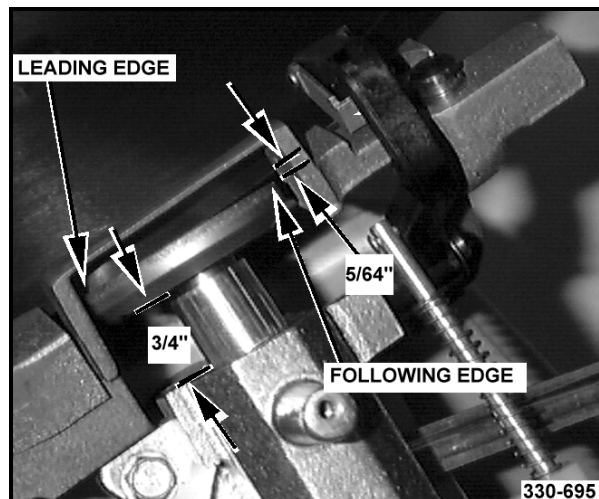
1. Remove "TOP KNIFE COVER".
2. Refer to "KNIFE SHAFT ASSEMBLY/LOWER HUB AND BEARING RETAINER" installation, step 7 and verify there is no end play in knife shaft.
3. Measure the height of knife ring guard to knife face (.150" max. To .100" min.). If the measured dimension is not within the proper tolerance replace the knife ring guard and repeat this step.



4. Reinstall "TOP KNIFE COVER".
5. Check unit for proper operation.

## KNIFE SHARPENER TO KNIFE POSITIONING

**NOTE:** The relationship of the knife sharpener to the knife is correct when the distance to the knife, as determined by measuring from the back face of the grinding wheel to the front of the housing and stud assembly is  $\frac{3}{4}$ ", with the sharpener handle horizontal and pulled forward until it stops with the leading edge of the grinding wheel against the knife, and the following edge (towards operator end of slicer) is  $\frac{5}{64}$ " from the knife (flatness to the knife).



**WARNING:** UNPLUG UNIT BEFORE SERVICING.

1. Remove "TOP KNIFE COVER".
2. Remove sharpener cover and plate assembly by removing two screws.
3. Holding the sharpener handle horizontal and pulled forward until it stops with the leading edge of the grinding wheel against the knife, measure for  $\frac{3}{4}$ " from the back face of the grinding wheel to the front of the housing and stud assembly.
  - A. Measure distance from knife to following edge of grinding wheel. The correct dimension is  $\frac{5}{64}$ ".
  - B. If adjustment is required, loosen two screws holding sharpener housing base to sharpener housing mount assembly. Reposition sharpener housing base, tighten mounting screws and recheck steps 3 and 3A. Repeat as necessary to obtain the correct position of sharpener to knife relationship.

4. Reassemble in reverse order steps 2 and 1.
5. Sharpen knife checking for proper sharpener operation.
6. Check unit for proper operation.

## 2812 AND 2912 INTERLOCK SWITCH ADJUSTMENT

**WARNING:** CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TESTS OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

1. Perform "2612 and 2812 BASE COMPONENT ACCESS" or "2712 and 2912 UPPER BASE AND AUTOMATIC BASE COMPONENT ACCESS", steps 1-5, 8 and 8A.
2. Back off the switch actuating screw in the interlock plate assembly until only a couple of threads show through.
3. With the gauge plate closed all the way and the transport assembly in the home position, plug the slicer in and turn it on.

**NOTE:** The machine should stay on, because the interlock switch is not actuated.

4. Slowly turn the switch actuating screw until the switch is actuated and slicer is turned off.
  - A. Turn the actuating screw one more full turn.
5. Check that turning the index knob to "0" or below "0" shuts the slicer off.
  - A. If it does not, adjust the "INDEX KNOB".
  - B. Unplug slicer.
6. Reassemble in reverse order step 1.
7. Check unit for proper operation.

# ELECTRICAL OPERATION

## COMPONENT FUNCTION

<b>2612 and 2712 On-Off Switch (1S)</b> . . . . .	Controls electrical power to knife motor.
<b>2812 and 2912 On-Off-Start Switch (1S)</b> . . . .	Three position switch which controls the electrical power to the relay (1CR). Motor starts when switch is pulled against spring; returns to run position when released.
<b>Lamp (1PL)</b> . . . . .	Will be on whenever On-Off switch is in the ON position and knife motor is operating.
<b>Capacitor (CAP)</b> . . . . .	The capacitor shifts electrical phase between the start and run windings so the knife motor will start in the proper direction.
<b>Knife Motor (1MTR)</b> . . . . .	Drives the slicer knife.
<b>2712 AND 2912 Automatic Motor (2MTR)</b> . . .	Drives the automatic linkage.
<b>Electronic Start Switch</b> . . . . .	Provides path to start windings during start-up of knife motor.
<b>2812 and 2912 Interlock Switch (1LS)</b> . . . .	Prevents the operation of the knife motor when the index knob is in the below "0" position.
<b>2712 Relay (1CR)</b> . . . . .	Controls power to automatic motor.
<b>2812 and 2912 Relay (1CR)</b> . . . . .	Controls power to knife motor. ▸ On Models with Auto Shut-off, controls time delay relay.
<b>2912 Relay (2CR)</b> . . . . .	Controls power to automatic motor.
<b>2812 and 2912 (Option) Time Delay Relay (1TDR)</b>	Removes power from relay after approximately 10 seconds if carriage transport assembly magnet is not passed in front of reset switch(3LS).
<b>2812 and 2912 (Option) Reset Switch (Auto Shutoff) (3LS)</b>	Resets time delay relay during slicing to 10 seconds after carriage transport assembly magnet passes in front of 3LS.
<b>2712 and 2912 Motor Control</b> . . . . .	Controls speed of automatic motor.
<b>2812 and 2912 Home Start Switch (2LS)</b> . . .	Prevents the slicer from starting unless in the home position.
<b>2712 Home Start Switch (1LS)</b> . . . . .	Prevents the slicer from starting unless in the home position.
<b>2712 and 2912 Automatic/Manual Switch 2S (Engage)</b>	Controls mode of operation.
<b>2712 High/Low Switch</b> . . . . .	Selects speed of automatic motor.
<b>2912 Speed Adjustment Switch</b> . . . . .	Selects speed of automatic motor.
<b>2712 and 2912 Circuit Breaker (1CB)</b> . . . .	Provides overload protection for motor control and automatic motor (2MTR).



## SEQUENCE OF OPERATION

Due to the various components and options available on these models, it is not practical to write a sequence of operation for each model.

The following example is based on a Model 2912, 120/60/1 with home start, wiring diagram F-33696.

1. Conditions.
  - A. Correct voltage supplied to slicer.
  - B. Index knob turned to "0" or above (interlock switch 1LS closed).
  - C. Carriage tray assembly in home position (home switch 2LS closed).
  - D. On-Off switch 1S in off position.
  - E. Automatic/manual (engage) 2S switch in manual position (c-no contacts closed).

### Manual Sequence of Operation

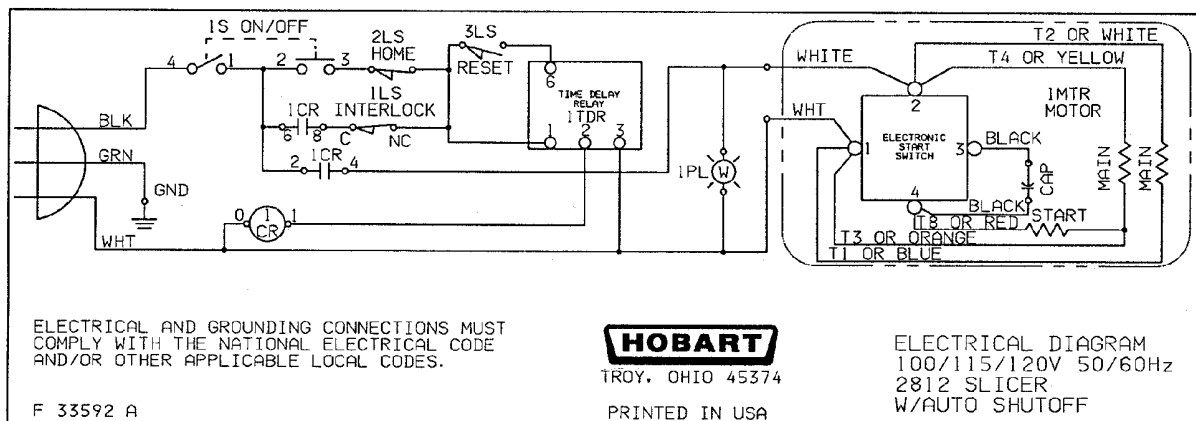
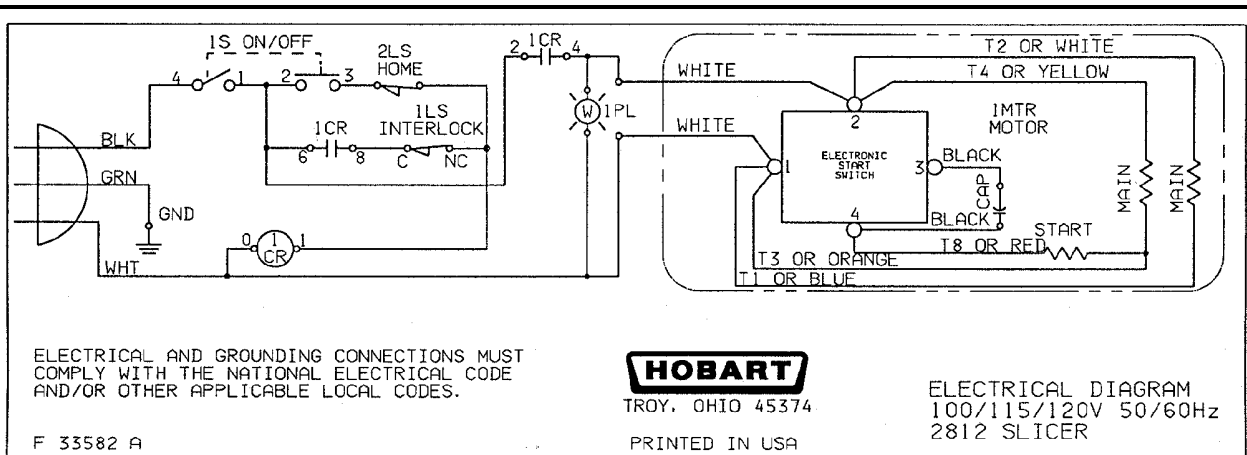
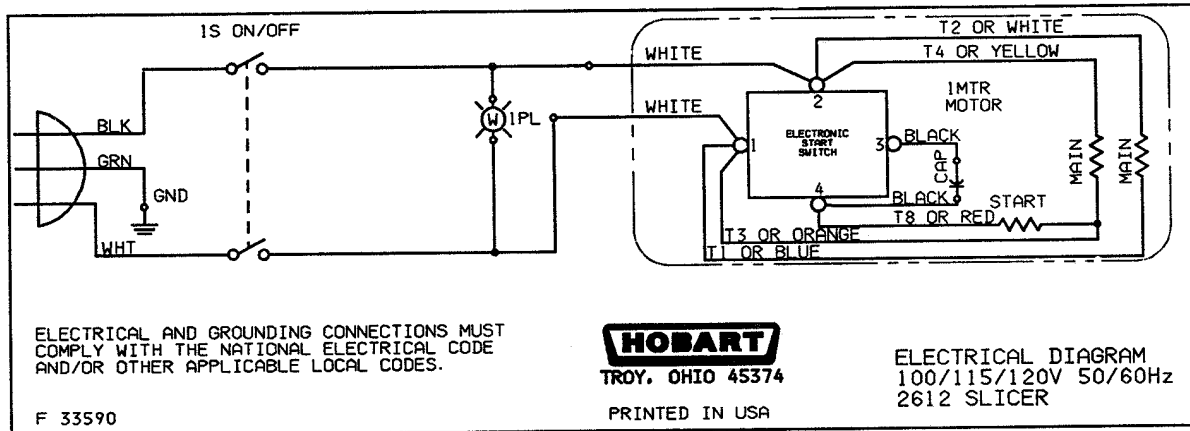
1. Operator pulls on-off switch 1S to start position.
2. 1CR energized through 1S, 2S and 2LS.
3. 1CR locks through 1S-4/1, 1CR-6/8 and 1LS.
  - A. 1PL lights through 1S-4/1 and 1CR-2/4.
  - B. 1MTR energized through 1S-4/1 and 1CR-2/4.
4. Operator releases 1S, 1S-2/3 open.
5. Operator manually moves carriage transport assembly to slice product.

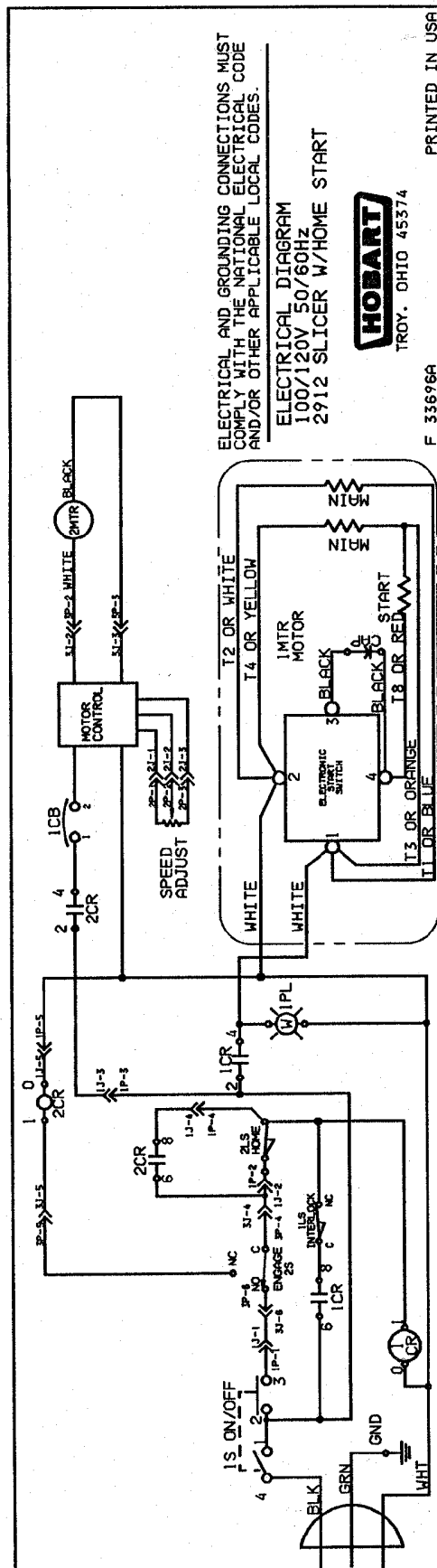
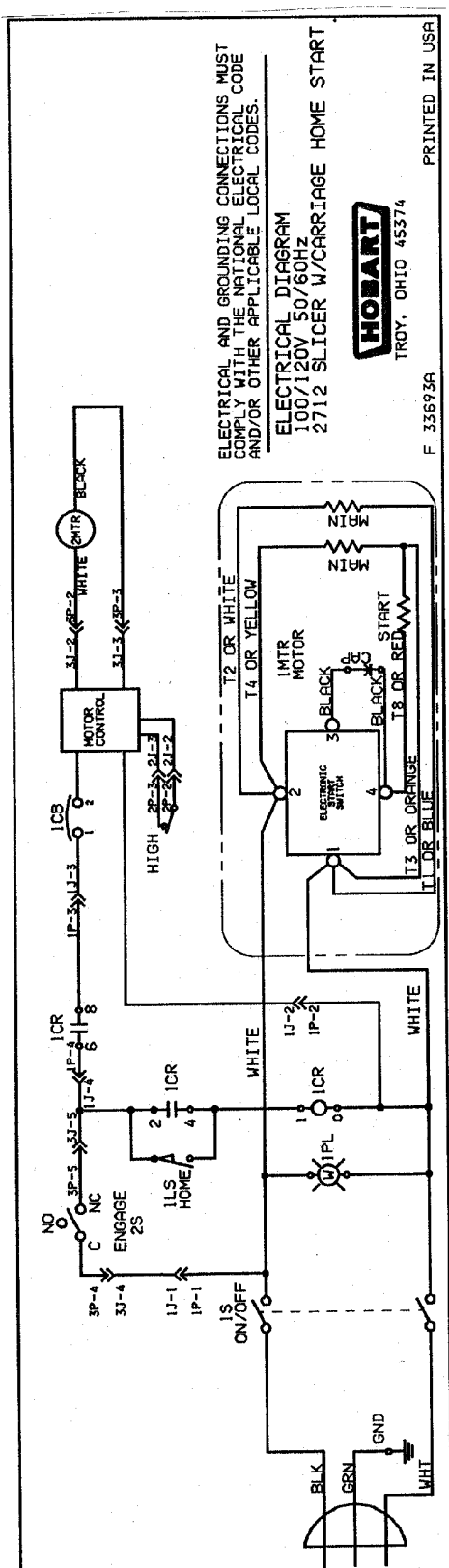
### Automatic Sequence of Operation

**NOTE:** The conditions are the same as stated in conditions 1A - 1E above.

1. Operator pulls on-off switch 1S to start position.
2. 1CR energized through 1S, 2S and 2LS.
3. 1CR locks through 1S-4/1, 1CR-6/8 and 1LS.
  - A. 1PL lights through 1S-4/1 and 1CR-2/4.
  - B. 1MTR energized through 1S-4/1 and 1CR-2/4.
4. Operator releases 1S, 1S-2/3 open.
5. Operator makes speed selection.
6. 2S placed in automatic position, C-NC contacts close.
7. 2CR energized through 1S, 1CR-6/8, 1LS, 2LS, 2S C-NC to 2CR.
8. 2CR locks through 1S, 1CR-6/8, 1LS, 2CR-6/8 and 2S.
  - A. 2MTR energized through 2CR-2/4, 1CB-1/2 and motor control.
9. Automatic carrier assembly moves and engages pawl on carriage transport assembly.
  - A. Carriage transport assembly moves and slices product automatically.

# WIRING DIAGRAMS







# TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES
Knife motor (1MTR) will not start.	<ol style="list-style-type: none"> <li>1. No power to slicer.</li> <li>2. Carriage tray assembly not in home start position (2712, 2812 &amp; 2912).</li> <li>3. Interlock switch open (2812 &amp; 2912).</li> <li>4. On-Off switch malfunction.</li> <li>5. Home start switch or magnet malfunction (2712, 2812 &amp; 2912).</li> <li>6. Time delay relay malfunction (option 2812 &amp; 2912).</li> <li>7. 1CR relay inoperative (2812 &amp; 2912).</li> <li>8. Electronic start switch malfunction.</li> <li>9. Capacitor malfunction.</li> <li>10. Motor inoperative.</li> </ol>
Slicer will not shut off.	<ol style="list-style-type: none"> <li>1. On-Off switch malfunction.</li> </ol>
Hard to slice.	<ol style="list-style-type: none"> <li>1. Blade dull.</li> <li>2. Carriage transport assembly not free on slide rod.</li> <li>3. Poly V-belt not adjusted properly.</li> </ol>
Wedge shaped slice.	<ol style="list-style-type: none"> <li>1. Gauge plate not aligned with knife. (Refer to "GAUGE PLATE and INDEXING KNOB ADJUSTMENT").</li> <li>2. Carriage tray assembly not aligned with knife and gage plate.</li> </ol>
Product going under top knife cover or being torn by top knife cover.	<ol style="list-style-type: none"> <li>1. Top knife cover not installed properly.</li> <li>2. Top knife cover not fitted properly. (Refer to "TOP KNIFE COVER FIT CHECK").</li> </ol>
Noisy.	<ol style="list-style-type: none"> <li>1. Defective bearings.</li> <li>2. Top knife cover rubbing knife. (Refer to "THRUST PLUG ADJUSTMENT").</li> <li>3. Poly "V" belt alignment.</li> </ol>
Indexing mechanism hard to turn.	<ol style="list-style-type: none"> <li>1. Improperly adjusted or malfunctioning indexing mechanism parts.</li> <li>2. Knob is dragging on index bezel.</li> </ol>
Meat grip hard to turn.	<ol style="list-style-type: none"> <li>1. Worn washers on each side of meat grip arm.</li> <li>2. Too much tension on meat grip handle mounting screw.</li> </ol>
Meat grip not retained properly in stored position.	<ol style="list-style-type: none"> <li>1. Worn or malfunctioning meat grip hanger.</li> </ol>
Carriage transport assembly out of adjustment.	<ol style="list-style-type: none"> <li>1. Roller bearing assembly not properly adjusted or worn.</li> </ol>
Deflector hard to install.	<ol style="list-style-type: none"> <li>1. Deflector worn.</li> <li>2. Deflector mount worn.</li> </ol>
Top knife cover not remaining in locked position.	<ol style="list-style-type: none"> <li>1. Spring inoperative.</li> <li>2. Loose parts.</li> </ol>
Slicer shuts off after approx. 10 seconds with carriage being moved.	<ol style="list-style-type: none"> <li>1. Reset switch 3LS or magnet malfunction (option 2812 &amp; 2912).</li> <li>2. Time delay relay inoperative (option 2812 &amp; 2912).</li> </ol>
Knife motor running, knife not turning.	<ol style="list-style-type: none"> <li>1. Poly V-belt malfunction.</li> <li>2. Poly V-belt not adjusted properly.</li> </ol>



# SLICER TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES
Knife motor running or starting at less than rated RPM (slow).	<ol style="list-style-type: none"> <li>1. Motor lead wires in wrong orientation at start switch.</li> <li>2. Inoperative capacitor and/or start switch.</li> </ol>
2712 and 2912 automatic motor (2MTR) will not start, knife motor running.	<ol style="list-style-type: none"> <li>1. Automatic/manual (engage) switch 2S inoperative.</li> <li>2. (2712) relay 1CR malfunction. (2912) relay 2CR malfunction.</li> <li>3. Motor control (PC board) malfunction.</li> <li>4. Motor brushes inoperative.</li> <li>5. Automatic motor (2MTR) inoperative.</li> </ol>
2712 and 2912 automatic motor (2MTR) running, no carriage movement.	<ol style="list-style-type: none"> <li>1. Automatic engage pawl missing.</li> <li>2. Pawl spring broken.</li> <li>3. Auto engage ramp on automatic carrier assembly worn.</li> <li>4. Automatic drive linkage malfunction.</li> </ol>